12. INTRACOASTAL WATERWAY

(1) The part of the **Intracoastal Waterway** described here is the toll-free **"canal"** which affords continuous protected passage behind the Atlantic Coast and the Florida Keys for more than 1,243 statute miles between Norfolk, VA, and Key West, FL **Route 1,** the basic route, follows Albemarle and Chesapeake Canal to Albemarle Sound; **Route 2,** the alternate route, is through Great Dismal Swamp Canal to the sound.

(2) Also described in this chapter is the Okeechobee Waterway, which junctions with the Intracoastal Waterway in St. Lucie Inlet.

(3) The Intracoastal Waterway is used by commercial light-draft vessels and tows unable to navigate long stretches in the open ocean, and by pleasure craft. Small-boat and recreation facilities are found along the waterway. Supervision of the waterway's construction, maintenance, and operation is divided among five U.S. Army Engineer Districts (Norfolk, Wilmington, Charleston, Savannah, and Jacksonville) whose district-office addresses are listed in the appendix.

(4) **Mileage.–**The Intracoastal Waterway (I.W.) mileage is zeroed in 36°50.9'N., 76°17.9'W., off the foot of West Main Street, Norfolk, VA, and progresses southward to I.W. Mile 1243.8 at Key West, FL, in 24°33.7'N., 81°48.5'W.

(5) **Distances along the Intracoastal Waterway are in statute miles to facilitate reference to the small-craft charts; all other distances are nautical miles. Mileage conversion tables are on page T–23.**

(6) **Channels.–**The Federal project for the Intracoastal Waterway via Albemarle and Chesapeake Canal provides for a least depth of 12 feet from Norfolk, VA, (I.W. Mile 0.0) to Fort Pierce, FL, (I.W. Mile 965.6), thence 10 feet to Miami, FL, (I.W. Mile 1089.0), and thence 7 feet to Key West, FL, (I.W. Mile 1243.8). The Miami to Key West section of the waterway has been completed only as far as Cross Bank (I.W. Mile 1152.5); the remainder has been deferred for restudy. Although no work has been performed on this section of the waterway, a channel, marked in accordance with I.W. markings, leads from Cross Bank to Big Pine Key along the northwesterly side of the Florida Keys. At Big Pine Key, the waterway bifurcates going north through Florida Bay or south through Hawk Channel to Key West. The channel has a controlling depth of about 5 feet and is exposed to winds from the northwest. (See Local Notice to Mariners and latest editions of charts for controlling depths of the Intracoastal Waterway.)

(7) The alternate route of the Intracoastal Waterway through the Great Dismal Swamp Canal and the Okeechobee Waterway is described later in this chapter.

(8) **Bridges.**–The minimum overhead clearance of fixed bridges over the Intracoastal Waterway is 56 feet at the Julia Tuttle Causeway at Miami, **Mile 1087.1.**

(9) General drawbridge regulations and opening signals for bridges over the Intracoastal Waterway are given in **117.1 through 117.49**, chapter 2. Special drawbridge regulations for certain bridges that supplement the general regulations are referenced with the area description of the waterway.

(10) As a public service and to assist in the management and safety of the Intracoastal Waterway, VHF-FM channels 13 and 16 are monitored at some of the bridges.

(11) **Overhead cables.**–The minimum clearance of overhead cables crossing the Intracoastal Waterway is 68 feet in Snows Cut, **Mile 295.8**. An overhead cable car at **Mile 356.4** has a least clearance of 67 feet under the low point of travel of the cabin.

(12) **Caution.–**When running with a fair tide or in windy weather, exercise caution when approaching and passing bridges and sharp turns. Many of the overhead cables over the waterway carry high voltage, and a margin of safety should be allowed when weather is unfavorable.

(13) **Locks.–**Great Bridge Lock (mile 11.5) is the only lock on the Intracoastal Waterway between Norfolk and Key West via Albemarle and Chesapeake Canal. It is 600 feet long (530 usable), 75 feet wide (72 feet usable), 16 feet over the sills, and has a lift of 2.7 feet. (See **207.160**, chapter 2, for regulations governing use, administration, and navigation of locks and floodgates.)

(14) Locks on the Great Dismal Swamp Canal and the Okeechobee Waterway are described later in this chapter.

(15) **Cable ferries.**–Cable ferries are guided by cables fastened to shore and sometimes propelled by a cable rig attached to the shore. Generally, the cables are suspended during crossings and dropped to the bottom when the ferries dock. Where specific operating procedures are known they are mentioned in the text. Since operating procedures vary, mariners are advised to exercise extreme caution and seek local knowledge. **DO NOT ATTEMPT TO PASS A MOVING CABLE FERRY.**

(16) **Aids to navigation.–**Intracoastal Waterway aids have characteristic yellow markings which distinguish them from aids to navigation marking other waters. (See U.S. Coast Guard Light Lists or Chart 1 (Nautical Chart Symbols and Abbreviations) for illustrations of special markings.)

(17) Lights and daybeacons should not be passed close aboard because those marking dredged channels are usually placed back from the bottom edge of the channel and others may have rip-rap mounds around them to protect the structures.

(18) **Charts.–**Navigation of the Intracoastal Waterway can be made easier by use of the special small-craft series which the National Ocean Service publishes.

(19) **Tides.–**Under ordinary conditions the mean range of tide in the waterway is from nontidal to about 7 feet. In many sections, the tide depends on the force and direction of the wind. Severe hurricanes have raised the water surface 10 feet or more above low water, in some localities.

(20) **Cross currents.–**Where two streams cross, the current will have a greater velocity in the deeper channel. This is noticeable along the Intracoastal Waterway where it follows a dredged canal cutting across a winding stream. Cross currents will also be noticed where either an inlet from the ocean or a drainage canal enters the waterway.

(21) **Weather**.–The Intracoastal Waterway affords protection from the winds and waves of the offshore Atlantic. Land creates friction that reduces windspeeds by as much as 30 percent of those over the open sea. Wave heights are reduced by shallow depths and limited fetch. When severe weather does strike, shelter is usually close by, either up a protected river or at a nearby port. However, navigation becomes more critical in many restricted reaches along this route, so that weather, as well as tides and currents, is important. The waterway is covered by a network of National Weather Service VHF-FM radio stations that provide continuously updated forecasts and warnings. Also Coastal Warning Display signals are located at various places along the Intracoastal Waterway and connecting channels. The Marine

Weather Services Charts published by the National Weather Service show the locations of both the radio stations and warning displays, while display locations are also listed on the NOS charts.

(22) **Small-craft facilities.**–There are many small-craft facilities along the Intracoastal Waterway. For isolated places and small cities, this chapter describes the more important of these facilities; for large recreational areas, where individual facilities are too numerous to mention, the information given is more general. Additional information may be obtained from the series of small-craft charts published for the many places, and from various local small-craft guides.

(23) **COLREGS Demarcation Lines.**–The lines established for Chesapeake Bay and the rivers, sounds, and inlets of the coasts of Virginia, North and South Carolina, Georgia and Florida are described in **80.510 through 80.735 and 80.740**, chapter 2.

(24) **Chart 12206.–Norfolk,** on the east bank of the Elizabeth River in Norfolk Harbor 26 miles inside the entrance to Chesapeake Bay, is one of the major ports of the United States. Supply and repair facilities are available at the marinas and yacht basins in Norfolk Harbor. A detailed description of the port is contained in **United States Coast Pilot 3, Atlantic Coast, Sandy Hook to Cape Henry.**

(25) From the City Wharf at the foot of West Main Street in Norfolk, **Mile 0.0,** the Intracoastal Waterway follows the Southern Branch of Elizabeth River to its junction with Deep Creek where the waterway divides into two routes. The mean range of tide in Southern Branch and Deep Creek is about 2.5 to 3 feet. **Naval restricted areas** are on both sides of the river. (See 334.290, chapter 2, for limits and regulations.)

(26) The **speed limit** is 6 knots from Eastern Branch to the Norfolk and Portsmouth Belt Line Railroad bridge, **Mile 2.6.** (See **162.55**, chapter 2.) This bridge has a lift span with a clearance of 6 feet down and 142 feet up. VHF-FM channels 16 and 13 are monitored at the bridge. At **Mile 2.8,** Jordan (State Route 337) highway bridge has a lift span with a clearance of 15 feet down and 145 feet up. VHF-FM channels 16 and 13 are monitored at the bridge. The Norfolk Southern Railway bridge at **Mile 3.6** has a lift span with a clearance of 10 feet down and 135 feet up. U.S. Routes 460 and 13 highway bridge and the Norfolk Southern Railway bridge at **Mile 5.8** have bascule spans with clearances of 11 feet and 7 feet, respectively; large vessels must exercise caution when making the turns to these bridges because of the current. VHF-FM channels 16 and 13 are monitored at these bridges. An overhead power cable at **Mile 6.5** has a clearance of 152 feet, and two overhead cables at **Mile 6.9** have clearances of 161 feet. Interstate Highway Route 64 bascule bridge at **Mile 7.1** has a clearance of 65 feet. (See **117.1 through 117.59 and 117.997 (a) through (c)**, chapter 2, for drawbridge regulations.) The bridgetender may be contacted at (804)545-4685.

(27) The **Albemarle and Chesapeake Canal**, about 10 miles long, connects Southern Branch of Elizabeth River with North Landing River.

(28) **Route 1.–Via the Albemarle and Chesapeake Canal to North River.**–From **Mile 7.2** at the entrance to Deep Creek, the basic route continues through Southern Branch, the Albemarle and Chesapeake Canal, North Landing River, Currituck Sound, Coinjock Bay, and North Carolina Cut to North River. The route is well marked and easily followed in daylight; strangers are advised against running at night.

(29) At **Mile 8.1,** the remains of a railroad swing bridge cross the waterway with a horizontal clearance of 80 feet. Dominion Boulevard Bridge (locally known as Steel Bridge) at **Mile 8.8** has a bascule span with a clearance of 12 feet. (See **117.1 through 117.59 and 117.997(d),** chapter 2, for drawbridge regulations.) At the open position. Virginia Highway 104 bridge at **Mile 8.8** has a bascule span with a clearance of 12 feet. At entrance of **Sykes Creek, Mile 9.3,** there is a small-craft basin which had reported depths of 5 feet in the approach and alongside the berths in July 1983. Berths with electricity, water, gasoline, diesel fuel, ice, and some marine supplies are available. A marine railway in the basin can handle craft up to 35 feet for hull and engine repairs. In December 1978, submerged piles were reported in the entrance to Sykes Creek, in about 36°44'02"N., 76°17'08"W.

(30) **Great Bridge Lock, Mile 11.5,** at the Southern Branch end of the Albemarle and Chesapeake Canal, is a tidal guard-lock 600 feet long, 72 feet wide, 16 feet over the sills, and a lift of 2.7 feet. Maximum length of tow allowed in the lock is 530 feet. Vessels and tows wider than 45 feet will not be permitted to pass through the lock without prior permission of the lockmaster. Tie-up dolphins are available at Great Bridge for temporary mooring when passage through the lock is delayed. There is no periodic tide southward of the lock; the water level depends on the force and direction of the winds. All vessels passing through the lock are required to list their registry, tonnage, and passengers.

(31) The lockmaster can be contacted 24 hours per day, 7 days per week on VHF-FM channel 16 or by telephone (804-547-3311) for lock information.

(32) **Great Bridge,** a town on the Albemarle and Chesapeake Canal at **Mile 12.0,** has bus connections with Norfolk. State Route 168 highway bridge across the canal at the town has a swing span with a clearance of 6 feet. VHF-FM channels 16 and 13 are monitored at the bridge. (See **117.1 through 117.59 and 117.997 (e)**, chapter 2, for drawbridge regulations.) Tie-up dolphins are available on both sides of the bridge for temporary mooring when bridge openings are delayed.

(33) A privately owned marina basin is on the south side of the canal a short distance eastward of Great Bridge. In 1998, depths of 8 feet were reported in the approach and alongside the piers in the basin. Berthage with electricity, water, ice, gasoline, and diesel fuel are available. A 30-ton lift is in the basin; hull and engine repairs can be made.

(34) From Great Bridge, the Albemarle and Chesapeake Canal continues eastward almost in a straight line for a distance of about 7 miles. The State Route 168 Bypass fixed highway bridge with a clearance of 65 feet crosses the canal at **Mile 13.0.** The Norfolk Southern Railway bridge at **Mile 13.9** has a bascule span with a clearance of 7 feet. The Centerville Turnpike Bridge at **Mile 15.2** has a swing span with a clearance of 4 feet. (See **117.1 through 117.59 and 117.997(f),** chapter 2, for drawbridge regulations.) A marina with a reported alongside depth of 8 feet in 1993 is immediately above the bridge on the north side. Transient berths, electricity, gasoline, diesel fuel, water, ice, pump-out station, hull and engine repairs, launching ramp, towing and a 4-ton lift truck are available. An overhead power cable with a clearance of 91 feet is at **Mile 16.4.**

(35) **North Landing, Mile 20.2,** is a small town at the junction of Albemarle and Chesapeake Canal and North Landing River. State Route 165 highway bridge over North Landing River at

North Landing has a swing span with a clearance of 6 feet. (See **117.1 through 117.59,** chapter 2, for regulations.) VHF-FM channels 16 and 13 are monitored at the bridge.

(36) A small-craft facility at North Landing had a reported approach depth of 6 feet with 4 feet alongside the piers in 1993. Berthage, water, ice, and a launching ramp are available.

(37) **North Landing River** is narrow and crooked for a distance of about 9 miles below the Albemarle and Chesapeake Canal. The worst bends have been bypassed by dredging through the marshy points; the remaining bends are usually easy. The old channels through the cut-off bends have numerous wrecks, partially visible at mean low water, and some submerged wrecks which are dangerous to navigation. At **West Landing, Mile 22.8,** there is a gasoline dock, open only in summer. At **Pungo Ferry, Mile 28.3,** State Route 726 fixed highway bridge across the river has a clearance of 65 feet. A marina just below the bridge on the east side of the waterway had a reported alongside depth of 5 feet in 1993. Transient berths, electricity, water, ice, pump-out station, hull and engine repairs, and a launching ramp are available.

(38) From **Mile 30.2,** the route is through a dredged cut in the open waters of North Landing River and **Currituck Sound,** thence into **Coinjock Bay** and through North Carolina Cut to the head of North River. **Munden** is a town on the east side of North Landing River at **Mile 32.0;** the wharf is in ruins. **Currituck** is a town on the west side of the mouth of North Landing River opposite **Mile 41.5.** A toll-free passenger-auto ferry, operated by the State Highway Commission, runs from Currituck to Knotts Island, NC.

(39) **Coinjock, Mile 49.9,** is a town on the Norfolk-Hatteras Highway, midway along the **North Carolina Cut** U.S. Route 158 fixed highway bridge across the cut has a clearance of 65 feet. An overhead power cable on the north side of the bridge has a clearance of 85 feet. Berths with electricity, gasoline, diesel fuel, water, ice, and marine supplies can be obtained at the small-craft facilities northward of the bridge. A 70-ton marine railway which can handle craft to 60 feet, and a 10-ton mobile lift are available at the facilities on the west bank of the cut northward of the bridge; hull, engine, and electronic repairs can be made. A launching ramp is at the facility on the east side of the cut northward of the bridge.

(40) A canal 22 feet wide branches northeastward from North Carolina Cut about 1.1 miles northward of the Coinjock Bridge, and connects with Currituck Sound through **Parker Creek.** In July 1983, depths of about 2 feet were reported in the canal. Tree stumps in the canal limit its use to outboards only; caution is advised. The fixed bridge 0.1 mile above the canal has a reported clearance of 6 feet.

(41) **North River** is about 14 miles long from North Carolina Cut to the entrance from Albemarle Sound and has a general depth of about 9 feet outside the dredged cut of the Intracoastal Waterway. The channel is marked by lights and daybeacons.

(42) **Route 2.–Via Great Dismal Swamp Canal to Albemarle Sound.–**This alternate route from the entrance to **Deep Creek, Mile 7.6,** leads westward from the Southern Branch to Great Dismal Swamp Canal, thence through Pasquotank River to Albemarle Sound.

(43) Vessels that proceed with care and follow the chart can navigate this route without difficulty. Mariners may call (804) 487-0831 for canal conditions. Extra caution is required in Deep Creek, Turners Cut, and the numerous sharp bends in the upper reaches of the Pasquotank River. Winds sometimes cause a variation of 1 to 2 feet in water level. Overhead power cables with a least clearance of 91 feet cross Deep Creek at **Mile 8.0.**

(44) **Great Dismal Swamp Canal,** a 19-mile-long nontidal summit-level section, is controlled by a lock at each end. "NO WAKE" signs have been posted in the canal. Vessels shall proceed at a speed to cause minimum wake.

(45) **Channels.–**Federal project depths are 10 feet in Deep Creek, 9 feet in Great Dismal Swamp Canal, and 10 feet in Pasquotank River. Great Dismal Swamp Canal is being maintained to a depth of only 6 feet because of reduced usage by vessels requiring a 9-foot channel. (See Local Notices to Mariners and latest editions of charts for controlling depths.)

(46) **Locks.–**There are two locks on the alternate route, one at the upper end and the other at the lower end of the Great Dismal Swamp Canal. **Deep Creek Lock** (Mile 10.6) and **South Mills Lock** (Mile 33.2) have the same dimensions; 300 feet long, 52 feet wide, 12 feet over sills, and lift of 12 feet. Vessels and tows wider than 35 feet will not be permitted to pass through the locks without prior permission of the lockmaster. Regulations governing use, administration, and navigation of locks and floodgates are given in **207.160,** chapter 2.

(47) At times, due to low water, navigation may be restricted or the canal closed. During restricted operations at Deep Creek Lock, boats up to 20 feet can be moved from one level to the other by a marine railway. Deep Creek Lock and South Mills Lock are operated at 0830, 1100, 1330, and 1530 daily. The bridges adjacent to the locks will be opened as necessary in coordination with the locks. The lock operators can be contacted on VHF-FM channel 13 or (804) 487-0831. Vessels may tie up in the canal overnight, at the Government facilities at Deep Creek, South Mills, and the Feeder Ditch to Lake Drummond.

(48) At Deep Creek Lock, **Mile 10.6,** vessels are required to list their registry, tonnage, and passengers. A dock about 100 feet long is at the lock. The town of **Deep Creek** is at **Mile 11.1,** and U.S. Route 17 highway bridge across the canal here has a bascule span with a clearance of 4 feet. Just south of the bridge is a bulkhead with 4 to 8 feet alongside where gasoline and some supplies may be obtained; there is a small-boat launching ramp.

(49) An overhead power cable with a clearance of 111 feet is at **Mile 12.1.**

(50) At **Mile 21.5,** a 30-foot-wide feeder ditch runs in a straight line westward from the Great Dismal Swamp Canal for about 3 miles to **Lake Drummond**; the ditch has a controlling depth of 4 to 5 feet, and the lake has depths of 3 to 5 feet. Lake Drummond is about 2.2 miles in diameter and the water level is about 6 feet higher than the canal. Flow of water from the lake is regulated by a series of gates or wickets in the feeder ditch at the Corps of Engineers reservation 0.5 mile from the lake. Boats up to 18 feet are moved overland past the gates by a small railway. All persons entering or leaving Lake Drummond through the feeder ditch are required at the gates to register their name, address, and purpose of visit. Visitors are warned of the dangers of being lost in the swamps and the menace of poisonous snakes, and are cautioned to take precautions to prevent forest fires. After winter and spring runoffs of water from Lake Drummond, there is a tendency for shoals to build up at the intersection of the Great Dismal Swamp Canal and the feeder ditch.

(51) A fixed highway bridge with a clearance of 65 feet is at **Mile 31.5.**

(52) Diesel fuel by tank truck and gasoline are available on the east side of the canal at **Mile 31.5.** Supplies are available at South Mills, **Mile 32.4.**

(53) U.S. Highway 17 bridge across the canal at **Mile 32.6** has a bascule span with a clearance of 4 feet. The **South Mills Lock** of the Great Dismal Swamp Canal is at **Mile 33.2.** Tieup dolphins are available for temporary mooring when passage through the lock is delayed.

(54) **Turners Cut** is a canal which extends in nearly a straight line from the south end of Great Dismal Swamp Canal to the Pasquotank River **Mile 37.0.**

(55) **Pasquotank River** has a length of 12 miles from the south end of Turners Cut to Elizabeth City, and thence 15 miles to Wade Point Light at the entrance from Albemarle Sound. The narrow upper part of the river has been improved by dredging, where necessary, to attain the project depth of the waterway. From Elizabeth City to the mouth, the river varies in width from 0.5 to 3 miles, has general depths of 8 to 12 feet, and is well marked by lights.

(56) The Norfolk Southern Railway bridge across Pasquotank River at **Mile 47.7** has a hand-operated swing span with a channel width of 42 feet and a clearance of 3 feet. (See **117.1 through 117.59 and 117.833 (a)**, chapter 2, for drawbridge regulations.) The overhead power cables along the south side of the bridge have a least clearance of 85 feet.

(57) **Knobbs Creek** is a nontidal freshwater stream on the north side of Elizabeth City and enters Pasquotank River at **Mile 50.2.**

(58) A dredged channel leads from Pasquotank River to a turning basin about 0.9 mile above the entrance, thence to the Norfolk Southern Railway bridge at the head of navigation about 1 mile above the entrance. In 1959-June 1974, the controlling depths were 9 feet on the centerline to the basin, thence 5½ feet in the basin, thence 2½ feet on the centerline to the head of navigation. An overhead power cable with a clearance of 75 feet crosses the creek just above the mouth.

(59) **Elizabeth City, Mile 50.7,** on the west bank of Pasquotank River, is one of the most important towns on the inland waters of North Carolina, and has rail, airline, and highway connections with Norfolk. Waterfront bulkheads have 20 to 27 feet alongside, and a vessel can usually find a berth. Anchorage can be had in depths of 7 to 12 feet on the north side of the channel just below the city. U.S. Route 158 highway bridges across the river at **Mile 50.7** have bascule spans with least clearances of 2 feet. (See **117.1 through 117.59 and 117.833 (b)**, chapter 2, for drawbridge regulations.) The river water is practically fresh.

(60) **Weather, Elizabeth City and vicinity**.–Elizabeth City enjoys mild winters and warm summers. Weather is tempered somewhat by the Albemarle Sound. Maximum temperatures reach 90°F (32.2°C) or more on about 33 days annually although 100°F (37.8°C) or more is usually reached on only 1 day each year. Minimum temperatures drop below freezing on an average of 55 days annually. The average high temperature at Elizabeth City is 69°F (20.6°C) while the average low is 50°F (10°C). July is the warmest month with an average high of 87°F (30.6°C) and an average low of 70°F (21.1°C). December is the coolest with an average high of 53°F (11.7°C) and an average low of 34°F (1.1°C). The warmest temperature on record is 104°F (40°C) recorded on July 22 and 23, 1952. The coolest temperature on record is 10°F (-12.2°C) recorded in February 1951. Only June and July have recorded temperatures in excess 100°F (37.8°C) and each month, October through April, has reported temperatures below freezing.

(61) Winds blow most frequently from the southwest, except in the fall when northeasterlies prevail. Gales are rare and winds of 17 knots or more occur only 2 to 3 percent of the time from October through April. Visibilities are worst from September through January, when they drop below 0.5 mile (0.9 km) on an average of 3 to 5 mornings per month; by noon this type of fog has generally lifted.

(62) Precipitation averages nearly 47 inches (1,193.8 mm) each year and is most frequent during the summer, particularly as brief heavy showers or thunderstorms. July is the wettest month averaging about 6.5 inches (165.1 mm) of rainfall while October is the driest month averaging about 2.5 inches (63.5 mm). About 3 to 4 inches (76.2 to 101.6 mm) of snow falls each winter. Snow has fallen in each month, November through April. The greatest 24-hour snowfall occurred on February 26, 1963 when 6.2 inches (157.5 mm) accumulated.

(63) Complete supply and repair facilities, restaurants, and hotel and motel accommodations are available at Elizabeth City. Small-craft facilities on both sides of the river southward of the bridge have about 3,600 feet of berthing space available. Gasoline, diesel fuel, water, ice, and marine supplies can be obtained.

(64) A boatyard on the south side of the river about 0.4 mile south of the bridge has a 60-ton fixed lift, and a marine railway that can handle craft up to 130 feet. Another boatyard just to the northward has a marine railway that can handle craft to 65 feet. Both facilities provide berths, gasoline diesel fuel, water, ice, marine supplies, and can make hull, engine, and electronic repairs.

(65) Elizabeth City has railroad freight connections with the Norfolk Southern railway and highway connections with U.S. Routes 17 and 158 and State Route 168.

(66) **Elizabeth City Coast Guard Air Station** is on the southwest side of the river about 3 miles southeastward of U.S. Route 158 highway bridge at Elizabeth City.

(67) **Newbegun Creek** enters Pasquotank River about 8.5 miles below Elizabeth City. **Weeksville,** the principal town on the creek, is 3 miles from the mouth. The controlling depth in 1963 was about 4 feet over the bar and in the main part of the creek. The creek is unmarked.

(68) Route 2 continues down the Pasquotank River, passing northward of Pasquotank River Entrance Light, and then turns southward across Albemarle Sound to join with Route 1 at the light at the entrance to Alligator River.

(69) **Chart 11553.–**From the vicinity of the light at the entrance to North River, Route 1 continues across Albemarle Sound for 12.7 miles to the light at the entrance to Alligator River, where alternate Route 2, via the Great Dismal Swamp Canal rejoins the basic route. The passage across the sound to Alligator River is marked by lights. In heavy weather the passage is uncomfortable and even dangerous for open boats. The rise and fall of the water level in Albemarle Sound depends on the wind.

(70) **Alligator River** extends in a southerly direction for about 20 miles, then turns west and narrows. The channel of the Intracoastal Waterway has been dredged the entire length of the wider part of the river and for about 4 miles through its western reach to the land cut connecting with Pungo River. The channel is well marked by lights and daybeacons. U.S. Route 64 highway swing bridge with a clearance of 14 feet crosses the waterway at **Mile 84.2** opposite **East Lake** on the eastern shore. It is reported

that this bridge will not open if the wind speed is over 34 knots. The bridgetender monitors VHF-FM channel 16 and works on channel 13; call sign, KU-9448. A small-craft facility at **Mile 84.1,** just north of the bridge on the west bank, has berths, gasoline, diesel fuel, electricity, and some marine supplies. In May 2000, 8 feet was reported in the approach and alongside.

(71) Alligator River and Little Alligator River are discussed in more detail in chapter 4.

(72) The route of the waterway passes from Alligator River to the **Alligator River-Pungo River Canal** at **Mile 105.0,** a land cut extending about 21 miles in a southwesterly direction. At **Mile 113.9**, State Route 94 highway bridge over the canal has a fixed span with a clearance of 65 feet. **Fairfield Canal,** just east of the bridge, is a privately owned land drainage canal which makes off in a southerly direction from the main channel; it is not navigable.

(73) **Caution.–**Mariners are advised to exercise extreme caution when navigating the Alligator River-Pungo River Canal. Controlling depths, published in the Local Notice to Mariners, are generally for less than the 90-foot project width. Continuous bank erosion is caused by passing boats and tows. Both sides of the canal are foul with debris, snags, and submerged stumps. Navigation near midchannel is recommended unless otherwise specified in Local Notice to Mariners.

(74) Mariners are cautioned that the color of the aids to navigation change after departing the canal and green markers are on the right when proceeding southerly while following the ICW until entering Goose Creek at **Mile 150.0**.

(75) The Alligator River-Pungo River Canal enters **Wilkerson Creek** at about **Mile 126.0**. Gasoline is available on the north side of the canal entrance. The route is then through the dredged cut in the creek to **Pungo River,** southwestward and westward to abeam of Belhaven, then southward in Pungo River to Pamlico River.

(76) **Belhaven,** 1.5 miles westward of **Mile 135.8,** is on the northeastern side of the entrance to **Pantego Creek**. The harbor is protected by breakwaters at the creek entrance and is an excellent shelter for small craft. There are marinas and repair facilities in the harbor. (See the small-craft facilities tabulation on chart 11553 for services and supplies available.) The town and the channel into the harbor from Pamlico River are discussed in chapter 4.

(77) From abeam of the light off **Grassy Point** at **Mile 142.3** in the lower part of Pungo River, the route leads for 4.4 miles until 0.7 mile past the light off **Wades Point** on the west side at the mouth of Pungo River; thence across Pamlico River for 3.2 miles to the light at the entrance to Goose Creek.

(78) **Wright Creek,** on the west side of Pungo River at Mile 143.0, and Pamlico River, the approach to the important town of Washington are discussed in chapter 4.

(79) The route of the Intracoastal Waterway follows the dredged channel through **Goose Creek** and its tributary, **Upper Spring Creek,** to the land cut which connects with **Gale Creek** and Bay River.

(80) Mariners are cautioned that the color of aids to navigation change again to red on the right when proceeding southerly while following the ICW starting with the aids marking Goose Creek at about **Mile 149.7.**

(81) The Hobucken (State Routes 33 and 304) fixed highway bridge, crossing the land cut at **Mile 157.2,** has a clearance of 65 feet. There are several small-craft facilities on both sides of the land cut in the vicinity of the bridge; gasoline, diesel fuel, water, ice, and berthage with electricity are available. Engine repairs can be made at one of the facilities. Depths of 5 to 10 feet are reported alongside the berths in July 1983. **Hobucken Coast Guard Station** is on the west side of the land cut just north of the bridge.

(82) The town of **Hobucken,** about 1 mile east of the bridge, has a landing on **Jones Bay,** which is discussed in chapter 4.

(83) From Gale Creek, the route of the Intracoastal Waterway is down **Bay River** to Neuse River Junction Light (35°08.7'N., 76°30.1'W.) off **Maw Point Shoal** at **Mile 167.1,** then up the Neuse River. Bay River is the approach to Bayboro and other small towns; Neuse River is the approach to the important city of New Bern. Both rivers are discussed in chapter 4.

(84) Westward of Mile **171.5** is the entrance to **Broad Creek.** The channel is marked by a light and daybeacons. On the north bank, 2.4 miles above the mouth, is a small-craft facility at **Whortonsville.** Berths, gasoline, diesel fuel, and water are available.

(85) **Chart 11541.–Whittaker Creek,** northwestward of the waterway at **Mile 180.8,** is marked by lights and daybeacons. In June 1999, the privately dredged entrance channel had a reported controlling depth of 7 feet. Several small-craft facilities are in the creek. (See the small-craft facilities tabulation on chart 11541 for services and supplies available.)

(86) The town of **Oriental** is west of **Mile 181.3** on the north side of Neuse River opposite **Garbacon Shoal**. Fuel, supplies, and repair facilities are available here. The town and its waterfront are discussed in chapter 4.

(87) The Intracoastal Waterway leaves Neuse River about 15 miles above the mouth and follows a dredged channel through Adams Creek to **Adams Creek Canal,** a land cut about 5 miles long which connects with the head of **Core Creek**. State Route 101 highway bridge over Adams Creek Canal at **Mile 195.8** has a fixed span with a clearance of 65 feet. Overhead power cables just below the bridge have a least clearance of 85 feet. Small-craft facilities are on either side of the waterway close northward of the bridge. A boatyard on the east side specializes in new construction and repair of steel boats, but will handle any craft in an emergency. A 200-ton mobile lift is available.

(88) From Core Creek, the route of the Intracoastal Waterway is through **Newport River** to Morehead City. At **Mile 202.2, Gallants Channel** branches off from the through route of the waterway and leads to Beaufort, which is described in chapter 5.

(89) **Calico Creek** extends westward from **Mile 203.6** through a dredged channel which leads to a basin and marina about 0.6 mile from the waterway. In 1995, the controlling depth was 9½ feet in the channel, thence 5 feet reported in the basin. The channel is marked by a buoy and daybeacons. Berthage with electricity, gasoline, diesel fuel, and water can be obtained, and hull, engine, and electronic repairs can be made. A barge repair facility is on the northwest side of the basin; this facility is described in chapter 5.

(90) At **Mile 203.8,** the adjacent Beaufort and Morehead railroad bridge and U.S. Route 70 highway bridge cross the channel. The highway bridge has a fixed span with a clearance of 65 feet, and the railroad bascule span has a clearance of 4 feet. (See **117.1 through 117.59 and 117.822,** chapter 2, for drawbridge regulations.) An overhead power cable between the two bridges has a clearance of 88 feet, and an overhead power cable southward of

the highway bridge has a clearance of 25 feet except at the channel where it is submerged. Caution is advised when running with a fair current or approaching the bridges in windy weather. (See the Tidal Current Tables for predictions.)

(91) **Caution.–**Just southward of these bridges the route of the waterway passes through the deepwater turning basin at Morehead City. Small-craft operators are cautioned that large oceangoing vessels may be engaged in docking or undocking maneuvers in the basin. The turns off the North Carolina State Ports Authority are blind for craft traveling in either direction on the waterway.

(92) **Morehead City, Mile 204.3,** and its deepwater port are discussed in length in chapter 5. At **Mile 204.7,** a dredged channel leads northward from the waterway thence westward along the south side of the city and rejoins the waterway at **Mile 206.0.** A turning basin is about midlength of the channel. In March 1999, the midchannel controlling depths were 6 feet from the east entrance to the turning basin, thence 7 feet in the basin, thence 4 feet to the west entrance. The channel is marked by daybeacons. There are several small-craft facilities in Morehead City and vicinity. (See the small-craft facilities tabulation on chart 11541 for services and supplies available.) Hotel and motel accommodations are available in the city.

(93) From Morehead City the waterway follows a dredged channel through **Bogue Sound.** The Atlantic Beach-Morehead City (State Route 1182) fixed highway bridge over Bogue Sound at **Mile 206.7** has a clearance of 65 feet. Caution is advised when running with a fair tide or approaching the bridge in windy weather. (See the Tidal Current Tables for predictions.) A power cable about 100 yards west of the bridge has a clearance of 49 feet (91 feet at main channel).

(94) The summer resorts, **Money Island Beach, Mile 205.7,** and **Atlantic Beach, Mile 207.0,** are at the south end of the bridge, 2 and 3 miles, respectively, west of Fort Macon. The buildings at the beaches are conspicuous. Boats reach the beaches through two dredged channels that branch off from the Intracoastal Waterway at **Mile 205.5. Money Island Channel** leads southwest to the beach, and **Causeway Channel** leads west to the causeway, thence south along the east side of the causeway to the beach. The channels are well marked. In August 2001, the controlling depth was 3.1 feet in Causeway Channel, thence 3.3 feet in Money Island Channel between the junction light at the entrance and Light 5. There are several piers at the beaches where berthage with electricity, gasoline, diesel fuel, and water may be obtained and small-boat launching ramps are available. Caution should be exercised in approaching these channels from the Intracoastal Waterway because of the shoal area off the entrance.

(95) At **Mile 209.2**, in August 2001, a dredged channel with a midchannel depth of 2.9 feet extended northward from the waterway into **Peletier Creek**. The channel is marked by daybeacons. Several small-craft facilities in the creek can provide berthage with electricity, gasoline, diesel fuel, water, ice, and marine supplies. Three marine railways can handle craft to 125 tons or 70 feet for hull, engine, and electronic repairs.

(96) In **Spooner Creek, Mile 210.5,** on the north side of Bogue Sound 3.8 miles west of Atlantic Beach highway bridge, there is a marina with 6½ feet of water reported alongside the piers. Berthage with electricity, gasoline, diesel fuel, water, and ice are available. In February 2000, 6½ feet was reported in the marked entrance channel. A 60-ton mobile lift is available for hull, engine, electronic, and electrical repairs.

(97) A fixed highway bridge with a clearance of 65 feet crosses the waterway at **Mile 226.0.**

(98) At **Bogue Inlet,** the waterway passes around the head of the marshes to **Swansboro, Mile 228.9.** A water tank in town is prominent. A side channel with a controlling depth of about 12 feet branches off from the Intracoastal Waterway at **Mile 228.9** near Light "46C" and extends along the waterfront of Swansboro and to a turning basin near the highway bridge. There are small-craft facilities along the waterfront and close to Swansboro. (See the small-craft facilities tabulation on chart 11541 for services and supplies available.)

(99) From Swansboro, the route of the waterway follows cuts through the marshes to New River. At **Mile 231.4, Cow Channel,** marked by daybeacons, leads southeastward from the waterway to Hammocks Beach State Park on Bear Island where picnicking and primitive camping are permitted. Small craft may dock at the two ferry slips located at the park. **Prohibited and danger areas** are along the waterway from **Mile 235.1 to mile 240.7.** (See **334.440 (e) and (f),** chapter 2, for limits and regulations.) A **safety zone** is along the waterway from **Miles 235.2 to Mile 245.2**. (See **165.514**, chapter 2, for limits and regulations.) A highway bridge at **Mile 240.7,** (locally known as Onslow Beach bridge), has a swing span with a clearance of 12 feet; the northwest draw only is used. An overhead power cable on the north side of the bridge has a clearance of 74 feet.

(100) At **Mile 244.5,** a channel marked by daybeacons leads to a turning basin at the Marine Corps facility at the head of **Mile Hammock Bay.** In May 1999, the reported controlling depths were 6½ feet in the entrance channel and 9 feet in the turning basin. At **New River Inlet** the waterway passes around the head of the marshes in New River to the land cuts southward. **New River** is the approach to the town of Jacksonville, described in chapter 5. Except at slack water, dangerous cross currents will be encountered in crossing the inlet.

(101) At **Swan Point, Mile 247.0,** just south of New River Inlet, are two marinas with berthage, electricity, gasoline, diesel fuel, water, ice, launching ramp, and some marine supplies. An 8-ton lift that can handle boats to 27 feet is available for hull and engine repairs.

(102) The route continues through **Alligator Bay and Stump Sound.** At **Mile 252.3,** a fixed highway bridge with a clearance of 65 feet crosses the waterway. An overhead power cable with a clearance of 85 feet is close southwestward of the bridge. State Routes 50-210 highway bridge at **Mile 260.7** has a swing span with a clearance of 12 feet. (See **117.1 through 117.59 and 117.821**, chapter 2, for regulations.) The bridgetender monitors VHF-FM channel 16 and works on channel 13; call sign KU-6044. The overhead power cable at the bridge has a clearance of 81 feet.

(103) A bulkhead, used for berthing and with reported depths of 5 feet alongside in July 1983, extends from just north of to just south of the highway bridge at **Mile 260.7**. Gasoline, diesel fuel, water, electricity, and some marine supplies may be obtained; a small-boat launching ramp is available.

(104) From Stump Sound the Intracoastal Waterway leads through **Topsail Sound** and **Middle Sound.** At **Mile 263.7,** a channel leads southeastward from the waterway thence southwestward along the barrier beach in Topsail Sound. The channel and the facilities along the barrier beach are described in chapter 5.

(105) At **Mile 270.0,** a marked channel leading eastward connects the waterway with **New Topsail Inlet.**

(106) The Figure Eight Island highway swing bridge (locally known as Surf City bridge) with a clearance of 20 feet crosses the waterway at **Mile 278.1.** The bridgetender can be contacted on VHF-FM channels 13 and 16.

(107) **Pages Creek,** on the north side of the waterway at **Mile 279.0,** has a yacht basin with an L-shaped pier about 250 feet long. Berthage with electricity, gasoline, water, ice, a launching ramp, and some marine supplies are available. A 2-ton lift here can handle craft to 25 feet for hull and engine repairs. At **Mile 279.8,** on the north side of the waterway, there is a yacht basin where berthage, water, and electricity are available. A 25-ton lift and a marine railway are available for hull, engine, and electrical repairs.

(108) U.S. Route 74-76 highway bridge over the waterway at **Wrightsville, Mile 283.1,** has a bascule span with a clearance of 20 feet at the center. (See **117.1 through 117.59 and 117.821**, chapter 2, for drawbridge regulations.) The bridgetender monitors VHF-FM channel 16 and works on channel 13; call sign, KU-6043. Overhead power and TV cables at the bridge have a least clearance of 78 feet.

(109) There are several small-craft facilities southward of the bridge at Wrightsville. These facilities have berthage with electricity, gasoline, diesel fuel, water, ice, launching ramps, and marine supplies, and can make hull, engine, and electronic repairs. Two marine railways, the larger of which can handle craft up to 60 feet and 50 tons, and fixed and portable lifts are also available.

(110) At **Mile 284.0,** a privately dredged channel leads westward from the waterway to a basin in **Bradley Creek.** In July 1999, the reported centerline controlling depth was 6½ feet in the channel and in the basin. A small-craft facility with piers is on the south side of the basin. Berthage with electricity, gasoline, diesel fuel, water, ice, some marine supplies, and a 40-ton mobile hoist are available. Hull, engine, and electronic repairs can be made. **Wrightsville Beach** on the outer coast, and **Masonboro Inlet** are discussed in chapter 5.

(111) From Wrightsville the waterway continues south through **Masonboro Sound** and **Myrtle Grove Sound.**

(112) **Chart 11534.**–The Intracoastal Waterway continues down Myrtle Grove Sound to Snows Cut. The shallow channel from the waterway to Carolina Beach at the south end of Myrtle Grove Sound is discussed in chapter 5.

(113) At **Mile 293.8,** a marina on the west side of Myrtle Grove Sound opposite Carolina Beach Inlet has gasoline, diesel fuel, water, ice, and marine supplies. A 25-ton mobile lift that can handle boats to 50 feet is available for hull, engine, and electronic repairs. An alongside depth of 5 feet was reported in June 2001.

(114) **Snows Cut** connects Myrtle Grove Sound with Cape Fear River. U.S. Route 421 highway bridge over Snows Cut at Mile **295.7** has a fixed span with a clearance of 65 feet. Overhead power cables 0.1 mile west of the bridge have a clearance of 68 feet. The ebb current is 1.0 knots, and the flood current is 1.2 knots. (For predictions, see the Tidal Current Tables.) A marina at the junction of Snows Cut and the Cape Fear River provides fuel, berthing, and two launching ramps. Depths of 2.0 to 4.5 feet were available in October 2001.

(115) From the western end of Snows Cut, the Intracoastal Waterway leads south-southwestward through a dredged channel to a junction with the main channel of Cape Fear River and thence southward to **Southport** where fuel, supplies, and repair facilities are available. In October 2001, the controlling depth in the dredged Intracoastal Waterway channel to the Cape Fear River junction was 9.7 feet. Mariners are cautioned that the color of the aids to navigation change and green markers are on the right while following the ICW until entering the channel south of Southport at **Mile 308.9.** It has been reported that at night some mariners have missed the turn at the junction in Cape Fear River due to the bright lights on the piers at the Sunny Point Army Terminal and the lighted aids marking the channel leading alongside the terminal; caution is advised.

(116) Another dredged channel, known as **Wilmington Short Cut** and marked by lights and daybeacons, leads northward from the western end of Snows Cut for about 1.7 miles where it connects with the main channel in Cape Fear River to the city of Wilmington, about 11.5 miles above Snows Cut. In March-July 1999, the controlling depth was 3 feet in Wilmington Short Cut. Wilmington and Southport are discussed in chapter 5.

(117) At Southport, **Mile 308.9,** the route of the Intracoastal Waterway leaves Cape Fear River and proceeds westward through land cuts to Lockwoods Folly River. Mariners are cautioned that the color of aids to navigation change to red marker on the right while following the ICW at the entrance to the land cuts. It has been reported that some mariners have attempted to enter the land cut by passing southward of the light at the entrance thereby going aground.

(118) At **Mile 309.3,** a marina in a basin on the north side of the waterway provides berths with electricity, gasoline, diesel fuel, water, ice, marine supplies, a launching ramp, and a 30-ton lift. Hull, engine, and electronic repairs are available. In July 1983, depths of 5 feet were reported alongside the berths.

(119) At **Mile 311.8,** a fixed highway bridge with a clearance of 65 feet crosses the waterway. An overhead power cable on the east side of the bridge has a clearance of 90 feet.

(120) At **Mile 313.8,** on the south side of the waterway opposite Beaverdam Creek, there is a yacht basin with a 200-foot pier with reported depths of 6 feet alongside. Berthage with electricity, gasoline, diesel fuel, water, ice, a launching ramp, and some marine supplies are available, and hull and engine repairs can be made.

(121) At **Mile 316.6**, an overhead power cable with a clearance of 100 feet crosses the waterway.

(122) In **Lockwoods Folly River,** the waterway passes around the head of marshes just inside Lockwoods Folly Inlet. A small-craft facility off the waterway and about 0.4 mile southward of **Mile 320.0** has a launching ramp, berths with electricity, gasoline, diesel fuel, water, ice, and some marine supplies. A 3-ton fixed lift is also available, and hull and engine repairs can be made. In 1983, depths of 5 feet were reported alongside the berths.

(123) Both sides of the waterway from **Mile 322.7** to **Mile 323.2** are lined with fishhouses and charter boat docks.

(124) State Route 130 highway bridge over the waterway at **Holden Beach, Mile 323.6,** has a fixed span with a clearance of 65 feet.

(125) An overhead power cable with a clearance of 85 feet crosses the waterway at **Mile 327.3.**

(126) The waterway passes around the head of the marshes inside **Shallotte Inlet** and proceeds westward by way of cuts through the marshes and sloughs. **Shallotte River, Mile 329.5,** causes strong currents and severe shoaling in the waterway.

(127) A marina at **Bowen Point**, locally known as **Shallotte Point, Mile 329.6** has a 26-ton lift for engine repairs. Berths with

electricity, gasoline, water, ice, and provisions are available. The facility in Shallotte River is also discussed in Chapter 6.

(128) At **Mile 333.7,** State Route 904 highway bridge crosses the waterway. It has a fixed span with a clearance of 65 feet. An overhead power cable close eastward of the bridge has a clearance of 85 feet. At **Mile 337.9,** a pontoon bridge (locally known as Sunset Beach bridge) crosses the waterway. The bridge is operated by cables that are suspended above or just below the water when the bridge is being opened or closed. The cables are dropped to the bottom when the bridge is in a fully opened or fully closed position. Warning signs with red letters on a white background are on the ends of the fenders on each side of the bridge. Extreme caution should be exercised in the area of the bridge. The bridgetender monitors VHF-FM channel 16 and works on channel 13; call sign, KU-6040. (See **117.1 through 117.59 and 117.821 (b)(6),** chapter 2, for regulations.) An overhead power cable just east of the bridge has a clearance of 85 feet. A small-craft facility with gasoline and a launching ramp is on the north side of the waterway at **Mile 339.6.**

(129) The **North Carolina-South Carolina State Line** crosses at **Mile 340.8** just before the waterway enters Little River.

(130) The waterway joins **Little River** at **Mile 341.8. Calabash River** extends northeastward from Little River just north of the waterway cutoff and southward to connect the waterway with Little River Inlet. In October-November 2000, a controlling depth of 5.9 feet could be carried with local knowledge to the town of **Calabash,** NC, 0.6 mile above the entrance. The channel is marked by lights and daybeacons. A small-craft facility at the town has berthage with electricity, gasoline, diesel fuel, water and a pump-out station.

(131) The town of **Little River,** SC, at **Mile 344.3,** has considerable pier space along its waterfront. Berths with electricity, gasoline, diesel fuel, water, ice, and marine supplies are available; engine repairs can be made. The mean range of tide at Little River is about 5 feet.

(132) A yacht basin is off the south side of the waterway at **Mile 347.0;** depths of 6 feet and 10 feet were reported in the approach and alongside the berths, respectively, in June 1983. Berths with electricity, gasoline, diesel fuel, water, ice, a launching ramp, and marine supplies are available. A 40-ton mobile hoist and a marine railway that can handle craft up to 65 feet are also available; hull, engine, and electronic repairs can be made.

(133) In June 1983, numerous rock ledges were reported abutting the deep portion of the waterway from **Mile 347.0** to **Mile 365.5**. Extreme caution is advised when transiting the area.

(134) A fixed highway bridge, with a clearance of 65 feet at the center, crosses the waterway at **Mile 347.2.** U.S. Route 17 highway bridge (locally known as Little River bridge) over the waterway at **Mile 347.3** has a swing span with a clearance of 7 feet. The bridgetender monitors VHF-FM channel 16 and works on channel 13; call sign, KT-5433. Overhead power and telephone cables, crossing the waterway from immediately westward to 1 mile westward of the swing bridge, have a least clearance of 69 feet.

(135) From Little River, the waterway follows a long land cut southwestward to Socastee Creek and Waccamaw River.

(136) At **Mile 353.3**, a swing bridge with a clearance of 31 feet crosses the waterway.

(137) At **Mile 355.5**, a fixed bridge with a clearance of 65 feet crosses the waterway.

(138) An overhead cable car crosses the waterway at **Mile 356.4.** The low point of travel of the cabin is not less than 67 feet. An overhead power cable with a clearance of 85 feet is 0.1 mile northwest of the cable car.

(139) At **Mile 358.3**, a fixed highway bridge with a design clearance of 65 feet was under construction in October 2000.

(140) An overhead power cable with a clearance of 85 feet crosses the waterway at **Mile 358.9**.

(141) In November 1999, a fixed highway bridge with a design clearance of 65 feet was under construction, at **Mile 360.5**.

(142) At **Mile 365.4,** the Seaboard Coast Line Railroad bridge has a bascule span with a clearance of 16 feet. Close westward, U.S. Route 501 highway bridge to Myrtle Beach has a fixed span with a clearance of 65 feet. Overhead cables at the bridges and for about 0.25 mile southwestward have a minimum clearance of 80 feet.

(143) A yacht basin at **Mile 368.1** has berthage with electricity, gasoline, diesel fuel, water, ice, a launching ramp, and some marine supplies. A 35-ton mobile lift is also available; hull and engine repairs can be made. Depths of 9 feet and 10 feet are reported in the approach and alongside the berths, respectively.

(144) An overhead power cable with a clearance of 85 feet crosses the waterway at **Mile 370.5.**

(145) State Route 544 highway bridge over the waterway at **Socastee, Mile 371.0,** has a swing span with a clearance of 11 feet; navigation is through the southeast draw. (See **117.1 through 117.59 and 117.911**, chapter 2, for drawbridge regulations.) The bridgetender monitors VHF-FM channel 16 and works on channel 13; call sign, KT-5438, preceded by bridge name. In March 1992, a replacement fixed highway bridge with a design clearance of 65 feet was under construction. Overhead power cables in the vicinity of the bridge have a minimum clearance of 85 feet.

(146) The route of the waterway enters **Waccamaw River** at **Enterprise Landing, Mile 375.2,** and follows the river to Winyah Bay. The direction of flow of the current in the waterway changes at Enterprise Landing. The mean range of tide at the landing is about 2 feet.

(147) **Bucksport,** on the west side of Waccamaw River at **Mile 377.5,** has a yacht basin where berths with electricity, gasoline, diesel fuel, ice, marine supplies, and a launching ramp are available. Minor engine repairs can be made. Depths of 8 feet were reported alongside the berths in March 2002.

(148) A yacht basin at **Wachesaw Landing, Mile 383.4,** about 6 miles south of Bucksport, has berthage with electricity, gasoline, diesel fuel, water, and ice. Hull, engine, and electronic repairs can be made. Depths of 10 feet are reported alongside the berths.

(149) U.S. Route 17 highway bridge over the Waccamaw River at **Mile 402.1,** has a fixed span with a clearance of 65 feet for a width of 90 feet. Mariners are cautioned that the color of aids to navigation change to green on the right while following the ICW at the confluence of the Waccamaw, Great Pee Dee, and Sampit Rivers at **Mile 403.9** until about Mile 406.0 where the waterway splits with Winyah Bay main channel.

(150) **Georgetown Coast Guard Station** is on the west bank of the Great Pee Dee River about 0.25 mile south of U.S. Route 17 highway bridge.

(151) **Georgetown, Mile 403.0,** at the head of Winyah Bay and just inside the mouth of **Sampit River,** is about a mile northwestward of the waterway. Supplies, hotel accommodations,

and repair facilities are available at Georgetown. The mean range of tide is 3.3 feet. The town is discussed at greater length in chapter 6.

(152) Mariners are cautioned that the color of aids to navigation change back to red on right where the waterway splits with Winyah Bay main channel at about **Mile 406.0.**

(153) The Intracoastal Waterway leaves Winyah Bay by way of **Western Channel** at **Mile 407.3,** and proceeds southward through the **Estherville-Minim Creek Canal** at **Mile 410.6.** A ferry crosses the canal at **Mile 411.5.** Southwest of the canal, the waterway crosses **North Santee River** and **South Santee River** and proceeds by way of cuts through the marshes to the vicinity of **Casino Creek (Mile 425.5).**

(154) **Chart 11518.–Cape Romain National Wildlife Refuge** comprises the coastal area southeast of the waterway from Casino Creek to **Price Creek (Mile 446.8).**

(155) From the vicinity of Casino Creek the waterway continues through the marshes and a land cut to the mouth of **Jeremy Creek (Mile 430.0). McClellanville** is on the side channel through Jeremy Creek, 0.6 mile northward of the waterway. Boats lie alongside the piers on the east side of the McClellanville channel. In March 2000, the controlling depth was 11.3 feet (12.0 feet at midchannel); thence in 1975, there was 8 feet alongside the piers. The mean range of tide at McClellanville is 5.1 feet. Gasoline, diesel fuel, water, and provisions are available.

(156) Mariners may gain access to the Atlantic Ocean via the marked channels in Town Creek, opposite McClellanville, and **Five Fathom Creek.** This route is reportedly used by fishing vessels.

(157) From McClellanville the waterway follows land cuts and sloughs through the marshes back of **Bulls Bay;** thence through shoal **Sewee Bay** and along **Price Creek;** through the marshes and along **Capers Creek;** behind **Dewees Island** and across **Dewees Creek** to the land cuts behind **Isle of Palms** and Sullivans Island. A ferry crosses the waterway at **Moores Landing** at **Mile 445.4.**

(158) A marina is on the south side of the waterway at **Mile 456.8.**

(159) At **Mile 458.9,** the Isle of Palms Connector is a fixed highway bridge with a clearance of 65 feet.

(160) An overhead power cable with a clearance of 86 feet crosses the waterway at **Mile 459.3.**

(161) On **Hamlin Creek** opposite **Mile 460.5,** east of **Breach Inlet,** there is a marina where berthage, electricity, gasoline, and water are available. An overhead power cable with a clearance of 94 feet crosses Hamlin Creek. A fixed highway bridge with a clearance of 28 feet crosses Hamlin Creek near its eastern mouth. The several outlets to the ocean along this stretch are described in chapter 6.

(162) Ben Sawyer Memorial (State Route 703) highway bridge to **Sullivans Island** over the waterway at **Mile 462.2** has a swing span with a clearance of 31 feet. (See **117.1 through 117.59 and 117.911**, chapter 2, for drawbridge regulations.) The bridgetender monitors VHF-FM channel 16 and works on channel 13; call sign, KT-5438. The overhead power cable at the bridge has a clearance of 89 feet. A marina is in the creek on the west side of the waterway just above the bridge.

(163) The route of the waterway enters the lower east side of **Charleston Harbor** between Sullivans Island and the town of **Mount Pleasant,** which is about 1 mile north of the waterway and is reached through a well-marked channel that branches off from the waterway at **Mile 464.2.**

(164) Complete supply and repair facilities are available at **Charleston, Mile 469.0.** The city is described at length in chapter 6. The mean range of tide at Charleston is 5.2 feet.

(165) The route of the waterway leaves Charleston Harbor at **Mile 469.3** by way of **Wappoo Creek.** The James Island Expressway fixed highway bridge, with a clearance of 67 feet, crosses the waterway at **Mile 469.9.** State Route 171 highway bridge over Wappoo Creek at **Mile 470.8** has a bascule span with a clearance of 33 feet at the center. (See **117.1 through 117.59 and 117.911**, chapter 2, for drawbridge regulations.) The bridgetender monitors VHF-FM channel 16 and works on channel 13; call sign KT-5438. Extreme caution is advised when running through the bridge with a current. In June 1983, mooring dolphins were reported to be on both sides of the bridge. An overhead power cable with a clearance of 100 feet is close westward of the bridge. Cross currents from the old creek are encountered on the ebb in the west approach, and are noticeable on the flood in the east approach due to the bends in the channel. Vessels should proceed slowly and with caution to avoid washing away of the banks east of the bridge.

(166) From Wappoo Creek, the route of the waterway is through **Elliott Cut** and **Stono River** to Wadmalaw River. Strong currents have been reported on the ebb and flood in Elliott Cut. At **Mile 472.0** is an overhead power cable with a clearance of 100 feet. An overhead power cable at **Mile 475.6** has a clearance of 91 feet over the main channel. A marina is on the south side of the waterway at **Mile 476.4.** The marina has facilities for hull, engine, electronic, and electrical repairs, water and shore power connections, a 30-ton lift, gasoline and diesel fuel, and a marine railway that can handle craft up to 1,000 tons or 200 feet long. The mean range of the tide at the junction of Stono River and Elliott Cut is 5.2 feet.

(167) An overhead power cable at **Mile 479.0** has a clearance of 91 feet.

(168) The John F. Limehouse Highway Bridge over Stono River at **Mile 479.3** has a swing span with a clearance of 12 feet. (See **117.1 through 117.59 and 117.911**, chapter 2, for drawbridge regulations.) The bridgetender can be contacted on VHF-FM channels 13 and 16. In June 2001, a replacement bridge was under construction, adjacent to the existing swing span. The overhead power cable at the bridge has a clearance of 92 feet. Caution is advised when running through the bridge with a current. A slight cross current is noticeable on the flood and ebb at both approaches.

(169) At **Mile 480.1, Rantowles Creek** enters from the north (see chart 11521). The Seaboard System Railroad (SCL) bridge 0.6 mile above the mouth has a 41-foot lift span which is not required to be opened; clearance in the down position is 4 feet. (See **117.1 through 117.59 and 117.935**, chapter 2, for drawbridge regulations.) About 1.3 miles above the mouth U.S. Route 17 highway bridge has twin 37-foot fixed spans with clearances of 9 feet. **Wallace Creek** enters Rantowles Creek from the west 0.1 mile above the railroad bridge. State Route 162 highway bridge, 0.7 mile above the mouth of Wallace Creek, has twin 38-foot fixed spans with clearances of 9 feet. Overhead cables between the mouth and the bridge have a minimum clearance of 8 feet.

(170) The route of the waterway enters **Wadmalaw River** at **Mile 486.7.** The town of **Yonges Island** is at **Mile 490.2**. A boatyard at the town has marine railways that can handle craft up to 150

feet long and 350 tons, and mobile cranes up to 40 tons. The maximum draft at the railways is 12 feet.

(171) From Wadmalaw River, the route of the waterway follows **Dawho River, North Creek,** and **Watts Cut** to South Edisto River. State Route 174 (Dawho bridge-locally known as Whooping Island bridge) highway bridge over Dawho River at **Mile 501.3** has a fixed span with a clearance of 65 feet. An overhead power cable just west of the bridge has an authorized clearance of 98 feet. In July 1999, it was reported that the overhead power cable has sagged to a clearance of 40 feet. Extreme caution is advised when passing under the bridge with a current. Cross currents from Dawho River are encountered on the ebb in the west approach and are noticeable on the flood in the east approach.

(172) Careful steering is required in the Dawho River between **White Point** and the entrance to the cutoff. The channel is well marked, but strong currents are experienced. Strong currents are also found at the crossings of the cutoff with the river. The mean range of tide in Dawho River is 6.3 feet.

(173) The waterway follows **South Edisto River** from Watts Cut to **Fenwick Cut,** thence along the **Ashepoo River** for a short distance to **Ashepoo-Coosaw Cutoff,** thence along the **Coosaw River** to Brickyard Creek.

(174) The entrance to **Brickyard Creek** near Brickyard Point, **Mile 529.1,** is between marshy shores, but the marsh on the south side is narrow and terminates just inside the creek in a red eroded bank leading up to somewhat higher ground; this bank is visible for some distance along the Coosaw River. The mean range of tide at the entrance to Brickyard Creek is 7.3 feet.

(175) On the west side of Brickyard Creek at **Mile 531.8,** and about 4 miles north of the swing bridge at Beaufort, there is a Marine Corps Air Station fuel pier. In February 1981, depths of 16 feet were reported alongside.

(176) **Albergottie Creek, Mile 532.4,** about 3.4 miles north of the swing bridge at Beaufort, runs in a westerly direction from the junction with Beaufort River and Brickyard Creek. In June 1983, the creek had a reported controlling depth of 3½ feet to the Marine Corps Air Station pier on the north side 0.7 mile above the mouth, thence 5 feet to a point 2 miles above the mouth. The Marine Corps pier had depths of 8 to 10 feet reported alongside in June 1983.

(177) The waterway continues along Brickyard Creek and into **Beaufort River.** On the west side of the waterway at **Mile 536.0** is the town of **Beaufort,** where fuel, supplies, and hotel accommodations are available. The town is described at length in chapter 7.

(178) The Ladies Island (U.S. Route 21) highway bridge over Beaufort River at Beaufort has a swing span with a clearance of 30 feet. (See **117.1 through 117.59 and 117.911**, chapter 2, for drawbridge regulations.) The bridgetender monitors VHF-FM channel 16 and works on channel 13; call sign, KT-5439. Extreme caution is advised when running through the bridge with a current; cross currents are encountered in the approach on flood and ebb.

(179) A fixed highway bridge with a clearance of 65 feet crosses the waterway at **Mile 539.7.**

(180) The waterway follows Beaufort River past **Port Royal, at Mile 541.5,** and into **Port Royal Sound,** which is described at length in chapter 7.

(181) Mariners are cautioned that the color of the aids to navigation change to green on the right while following the ICW at **Mile 541.7** until the waterway enters Port Royal Sound.

(182) **Chart 11507.**–The color of the aids to navigation change to red on the right while following the ICW when entering Port Royal Sound at about **Mile 547.9.** After crossing Port Royal Sound, the route of the waterway enters **Skull Creek** at **Mile 553.3** and follows it to **Calibogue Sound,** thence down the sound to the mouth of Cooper River. **Seabrook Landing,** on the south side of Skull Creek, is at **Mile 553.6**. At **Mile 554.8** on the east side of Skull Creek, there is a small-craft facility where berths with electricity, marine supplies, a lift to 50 tons, and hull and engine repairs are available.

(183) At **Hilton Head Harbor, Mile 557.0,** on the south side of Skull Creek, there is a small-craft facility where berths with electricity, gasoline, diesel fuel, water, and ice are available. A county pier, with reported depths of 8 feet alongside in June 1983, is at Hilton Head Harbor.

(184) At **Mile 557.6,** the twin fixed spans of the U.S. Route 278 highway bridge have a clearance of 65 feet. During the flood tide, vessels will encounter a strong cross current on the north side of the bridge, and should exercise caution when approaching the bridge from the northward. Dense fog is frequently encountered in this vicinity. An overhead power cable near the bridge has a clearance of 91 feet. A small-craft facility at **Mile 558.1** is just above the bridge on the east side of the waterway. Berths, gasoline, diesel fuel, electricity, water, ice, pump-out, marine supplies, and repairs are available. In February 2001, a depth of 6 feet was reported in the approach and 8 feet alongside.

(185) Small-craft facilities on Broad Creek and at Harbour Town on Hilton Head Island, eastward of the waterway at about **Mile 564.3,** are discussed in chapter 7.

(186) The route follows **Cooper River** to Ramshorn Creek at **Mile 568.6**. An overhead power cable with a clearance of 55 feet crosses Cooper River 1.8 miles northward of its junction with Ramshorn Creek. At **Mile 569.2** an overhead power cable crossing **Ramshorn Creek** has a clearance of 86 feet. An overhead power cable, about 0.4 mile W of Ramshorn Creek across an unnamed creek between Page Island and Pine Island, has a reported clearance of 20 feet. The tides meet in Ramshorn Creek. Between the creek and Walls Cut the route follows **New River.** Care is required as cross currents may be encountered in New River.

(187) The mean range of tide in **Walls Cut, Mile 572.4,** is 7.1 feet. The route is through the cut and along **Wright River** for a short distance, thence through **Fields Cut** and into Savannah River at **Mile 575.6.** The Savannah River ebbs through the cut, and strong cross currents may be experienced at the ends of it; these currents cause a shoal to build up and encroach from westward at the east end of the cut. (For predictions, see the Tidal Current Tables.)

(188) **Savannah River** is the approach to the important city of **Savannah,** about 8 miles upstream from the Intracoastal Waterway crossing. Savannah has complete supply and repair facilities, and is described at length in chapter 7. The only small-craft facilities at Savannah are at the Municipal Dock; water and electricity are available. The nearest facilities where other services may be obtained are at Thunderbolt and Isle of Hope.

(189) Daily predictions for Savannah River are published in the Tidal Current Tables.

(190) The Intracoastal Waterway leaves the Savannah River at **Mile 576.2** and enters **Elba Island Cut,** which leads into **St. Augustine Creek.** In July 1982, rocks awash were reported on the south side of the junction of Elba Cut and Savannah River in about 32°04'16"N., 80°58'15"W. At the junction of St. Augustine

Creek and **Wilmington River, Mile 578.3,** a cutoff channel extends northeastward from the waterway to Savannah River South Channel, thence along the southern side of Elba Island to a junction with Savannah River; the cutoff channel is marked by daybeacons and buoys, and in June 1983, the reported controlling depth was 5 feet. A fixed highway bridge with a clearance of 35 feet crosses the cutoff channel from Elba Island. An overhead power cable with a clearance of 60 feet is immediately south of the bridge.

(191) The Sam Varnedoe (Island Expressway) highway bridges (locally known as Causton Bluff bascule bridges) crossing Wilmington River at **Mile 579.9** has a bascule span with a clearance of 21 feet. (See **117.1 through 117.59 and 117.353**, chapter 2, for drawbridge regulations.) The bridgetender monitors VHF-FM channels 13 and 16. No crosscurrents are experienced during either flood or ebb; the currents follow the direction of the channel. An overhead power cable close southward of the bridge has a clearance of 85 feet.

(192) State of Georgia Memorial Bridge (U.S. Route 80) highway bridge over Wilmington River at **Mile 582.8** has a fixed span with a clearance of 65 feet.

(193) No cross currents are experienced during either flood or ebb; the currents follow the direction of the channel. Ebb currents flow southward and are very strong. Mooring dolphins for tying-up or breaking-up tows are on both sides of the bridge. When proceeding against the current, a tow may be taken through without breaking up. When proceeding with the current, a tow should be secured to the dolphin and await a favorable current or be broken up and taken through singly.

(194) **Thunderbolt, Mile 582.8,** is a small town and pleasure resort on the west bank of Wilmington River. There are several marinas and boatyards on both banks of the river where berthage with electricity, gasoline, diesel fuel, water, ice, and marine supplies are available. Lifts to 1,150 tons, and several marine railways are also available; the largest railway can handle craft to 75 feet. Hull, engine, and electronic repairs can be made. Bus transportation is available to Savannah.

(195) At **Mile 585.5**, the route leaves the Wilmington River and enters **Skidaway River.**

(196) Turner Creek, about 0.6 mile eastward of the Wilmington River-Skidaway River junction, is described in chapter 8.

(197) **Isle of Hope, Mile 590.0,** is a pleasure resort on the north side of Skidaway River with several small wharves and a boatyard. The boatyard has berthage with electricity, gasoline, diesel fuel, water, ice, marine supplies, and a marine railway that can handle craft up to 50 feet; hull, engine, and electronic repairs can be made.

(198) A **small-craft anchorage** is in Skidaway River off Isle of Hope. (See **110.179**, chapter 2, for limits and regulations.)

(199) **Skidaway Narrows,** between Skidaway River and Burnside River, is easily navigated by small craft, and by larger vessels when speed is reduced sufficiently to accommodate the sharp turns. The velocity of current in the narrows is about 1 knot. Predictions are given in the Tidal Current Tables. A double-bascule highway bridge with a clearance of 22 feet crosses Skidaway Narrows at **Mile 592.8**. The bridgetender monitors VHF-FM channel 16 and works on channel 13; voice call Skidaway Bridge.

(200) No crosscurrents are experienced during either flood or ebb; the currents follow the direction of the channel.

(201) An overhead power cable immediately southwestward of the bridge has a clearance of 85 feet.

(202) **Vernon View, Mile 596.3,** on the north shore of Burnside River, has several small privately owned piers where gasoline may be obtained in an emergency. In June 1983, there were depths of 1 to 7 feet reported at the piers.

(203) At **Mile 596.9,** the Intracoastal Waterway enters **Vernon River.** At **Mile 600.9, Delegal Creek** empties into the east side of Vernon River. The creek is entered via **Steamboat Cut.** A small-craft facility is on the east side of Delegal Creek about 1.4 miles above the mouth. Berthing, gasoline, diesel fuel, water, ice, pump-out station, marine supplies, and hull and engine repairs are available. Depths of 7 feet are reported in the approach to the facility with 9 feet alongside the piers. The waterway enters **Hell Gate** at **Mile 601.4** and continues into **Ogeechee River.** The ebb currents setting out of the Ogeechee River are particularly strong.

(204) The waterway enters **Florida Passage** at **Mile 605.8** and joins **Bear River at Mile 608.5.** The current is swift in the lower part of Bear River.

(205) **St. Catherines Sound, Mile 618.0,** becomes quite rough in moderately bad weather, especially with strong east and northeast winds. Strong cross currents may be encountered during freshets in **Medway River.** The course across St. Catherines Sound is marked by lights and should be followed closely. Failure to do so has resulted in many rescue calls by the Coast Guard.

(206) The waterway leaves St. Catherines Sound through **North Newport River** and at **Mile 623.8** joins **Johnson Creek.** An alternate route leaving the waterway at **Mile 618.0** proceeds through **Walburg Creek** and joins the main route at **Mile 623.1.** This alternate route is not marked and is seldom used. Good anchorage can be found in Walburg Creek.

(207) The Intracoastal Waterway leaves Johnson Creek and enters **South Newport River** at **Mile 629.0,** and follows the river to Sapelo Sound at **Mile 632.0. Sapelo Sound** is somewhat rough when there are strong east or northeast winds. The sound is described in chapter 8.

(208) The route leaves Sapelo Sound through **Sapelo River** and enters **Front River at Mile 639.0.** In June 1983, the reported controlling depth was 8 feet for 5 miles up the Sapelo River to a land cut, thence 2 feet through a land cut to just above the landing at **Pine Harbor** (chart 11510).

(209) Continuing down Front River, the waterway passes through **Creighton Narrows** and joins **Old Teakettle Creek** at **Mile 643.4. Shellbluff Creek** flows into Old Teakettle Creek at **Mile 644.1.** In emergency, gasoline may be obtained at **Valona,** 0.7 mile up **Shellbluff Creek** (chart 11510).

(210) At **Mile 648.3,** the route enters **Doboy Sound,** described in chapter 8. The waterway leaves Doboy Sound via **North River** at **Mile 650.0** and at **Mile 651.8** the route passes **Darien River.**

(211) **Little Mud River** connects the waterway with **Altamaha Sound** at **Mile 655.5.** East of the waterway, **Wolf Island, Egg Island,** and **Little Egg Island** make up **Wolf Island National Wildlife Refuge**. The **Altamaha River** enters Altamaha Sound from westward.

(212) The Intracoastal Waterway enters **Buttermilk Sound** at **Mile 660.0** and continues down **Mackay River.**

(213) Two alternate routes branch off the waterway on the Mackay River. The first, at **Mile 665.8**, proceeds down the **Frederica River** past the ruins of **Fort Frederica (Oglethorpe Barracks),** now a National Monument, and rejoins the waterway at **Mile 674.2**. In July 2000, the midchannel controlling depth

was 12 feet for 3 miles from Lanier Island; thence in 1983, a depth of 7 feet was reported to the northerly junction with Mackay River. This first alternate route is not marked.

(214) The second alternate route leaves Mackay River at **Mile 670.7** and enters **Back River,** proceeding down through **Plantation Creek** to Brunswick River (see chart 11489). This route bypasses St. Simon Sound and is a more sheltered route in easterly weather. In July 1998, the midchannel controlling depths were 3 feet in Black River and 2½ feet in Plantation Creek. Although the second alternate route is the shorter to Brunswick, mariners are advised to use Plantation Creek only on the higher stages of the tide. The mean range of tide is about 7 feet. The bridges over Back River are described in chapter 8.

(215) At **Mile 670.7, Troup Creek** empties into the west side of Mackay River. A small-craft facility is on the west side of the creek about 1.1 miles above the mouth. Berthage with electricity, gasoline, water, ice, marine supplies, and a 2-ton fixed lift are available; engine and electrical repairs can be made. A Coast Guard vessel is stationed on the west side of the creek, about 1 mile above the mouth.

(216) At **Mile 674.2**, Frederica River alternate route rejoins the main route in Mackay River and the main route proceeds into St. Simons Sound. At **Mile 674.5**, a fixed highway bridge with a clearance of 65 feet crosses Mackay River to Lanier Island.

(217) **Chart 11489**.–From Mackay River, the waterway continues through **St. Simons Sound** and **Brunswick River** to Jekyll Creek. About 3.4 miles up Brunswick River from **Mile 679.4** is the city of **Brunswick,** at which hotel accommodations, fuel, supplies, and repair facilities are available. The city is described at length in chapter 8.

(218) The Intracoastal Waterway follows **Jekyll Creek** southward from Brunswick River to Jekyll Sound. The entrance is marked by a lighted range and protected by a jetty on its west side, the outer end of which is marked by a light. Jekyll Island Range Front Light is about 25 yards to the westward of this light. The jetty covers at high tide, but is marked by daybeacons. To enter, be guided by the range, lights, a buoy, and daybeacons.

(219) A marina at **Mile 683.6** has a pier 300 feet long with reported depths of 5 feet alongside, and a 2-ton small-boat hoist that can launch or pick up boats. Gasoline, diesel fuel, water, ice, and electricity are available.

(220) At **Mile 684.4**, State Route 520 highway fixed bridge crossing the waterway has a clearance of 65 feet. No crosscurrents are experienced during either flood or ebb; the currents flow in the direction of the channel. A marina on the east side of the waterway just above the bridge has reported depths of 12 feet in the approach and 11 feet alongside the piers in 1993. Berthage, electricity, gasoline, diesel fuel, water, ice and sewage pump-out are available. From Jekyll Creek the waterway enters **Jekyll Sound** at **Mile 685.7** and continues across St. Andrew Sound.

(221) **St. Andrew Sound,** which has the most hazardous exposure along the waterway south of Port Royal Sound, is very rough during periods of strong north, northeast, or east winds. A protected route bypassing St. Andrew Sound leaves the waterway at **Mile 686.0.** This alternate route passes through **Little Satilla River, Umbrella Cut, Umbrella Creek, Dover Cut, Dover Creek, Satilla River, Floyd Creek,** and rejoins the waterway in Cumberland River at **Mile 695.8**. In 1998, the midchannel controlling depths were 5.0 feet in Umbrella Cut, 4.0 feet in Umbrella Creek, 7.0 feet in Dover Creek, and 3.5 feet in Floyd Creek. In 1981, a wreck was reported at the junction of Dover Creek and Satilla River in about 30°59'00"N., 81°29'24"W. Caution is advised.

(222) **Little Cumberland Island** and **Cumberland Island** extend along the east side of the waterway from **Mile 690.0** to **Mile 714.0.** The islands have been designated a National Seashore Park, although some parts are still privately owned. Persons wishing to visit the islands must make arrangements with the National Park Service at St. Marys.

(223) An anchorage, reportedly used by visitors to the National Seashore Park, in depths of about 25 feet, mud bottom, is off the abandoned settlement of **Dungeness,** on the west side of Cumberland Island about 0.8 mile northeastward of **Mile 710.8.** The anchorage is open to southwesterly winds, and the current is reported to attain a velocity of 2 knots.

(224) From St. Andrew Sound the waterway enters **Cumberland River,** passing by **Cumberland Wharf, Mile 694.6,** and **Cabin Bluff, Mile 700.2.** The Cumberland River becomes **Cumberland Dividings** and joins with **Cumberland Sound** at **Mile 704.0.**

(225) At **Mile 707.8,** the waterway passes east of the Naval submarine support base in Kings Bay.

(226) Mariners are cautioned that the color of aids to navigation change to green on the right while following the ICW until the waterway enters Amelia River at about **Mile 714.3,** thence the color of aids to navigation change to red on the right.

(227) A **regulated navigation area** has been established in Cumberland Sound in the vicinity of Kings Bay. (See **165.1 through 165.13 and 165.730**, chapter 2, for limits and regulations.)

(228) The waterway continues down Cumberland Sound past the St. Marys River and into **Amelia River** to **Fernandina Beach, Mile 717.0,** where hotel accommodations, fuel, supplies, and repair facilities are available. Fernandina Beach is described at length in chapter 8.

(229) At **Mile 719.8**, the waterway enters **Kingsley Creek. At Mile 720.6,** an unmarked private channel leads eastward to a small-craft facility. Berthing, electricity, gasoline, diesel fuel, water, ice, pump-out station, and a lift to 35 tons for hull and engine repairs are available. Two bridges cross the waterway at **Mile 720.7.** The first, the Seaboard System Railroad (SCL) bridge, has a swing span with a clearance of 5 feet; an island is aligned with the center fenders of this bridge. The second, State Route A1A highway bridge, is a twin fixed bridge with a clearance of 65 feet. Overhead power cables on the south side of the bridge have a least clearance of 80 feet. The mean range of tide at the bridge is 6 feet. Flood and ebb currents are normal to the bridge openings and are relatively high; velocities up to 2.5 knots on the flood and 3 knots on the ebb may be expected, especially with favoring winds. Caution is advised. (For predictions, see the Tidal Current Tables.)

(230) At **Mile 722.8,** the waterway enters **South Amelia River** and for a distance of about 4.5 miles the channel is narrow and winds through shoals and marsh islets. Although the channel is well marked by daybeacons and lights, it is the most difficult part of this section of the route. At low water, the extensive mudflats and oyster beds on each side of the channel are well defined. **Amelia City** is at **Mile 724.3.** The piers are privately owned, and there are no facilities except a restaurant. The southernmost pier, owned by the restaurant, is in poor condition, but boats may tie up to it at their own risk. The waterway enters **Nassau Sound** at **Mile 729.0.** The sound is described in chapter 8.

(231) At **Mile 729.5,** the Intracoastal Waterway leaves Nassau Sound through a cut about 0.9 mile long and then enters **Sawpit Creek.** The waterway continues along Sawpit Creek and Gunnison Cut to the junction of Sisters Creek with Fort George River at **Mile 735.0.**

(232) **Fort George River** is marked by daybeacons and trends southward from the waterway to Fort George Inlet, described in chapter 8.

(233) The **Kingsley Plantation,** a prominent historical building and State park, is on the south side of Fort George River about 0.7 mile southeastward of its junction with the Intracoastal Waterway. Good anchorage in 15 feet is reported available just southeastward of Daybeacon 5. The current is reported to be 3 knots.

(234) The waterway continues down **Sisters Creek.** (For current predictions in the creek see the Tidal Current Tables.)

(235) At **Mile 739.0,** a small creek leads west from Sisters Creek. A marina and boatyard on the south side of the creek mouth has berths with gasoline, diesel fuel, water, ice, electricity, and a launching ramp. A 65-foot marine railway and a 40-ton lift are available for hull and engine repairs.

(236) At **Mile 739.2,** near the junction of Sisters Creek and St. Johns River, State Route 105 highway bridge crossing the waterway has a bascule span with a clearance of 24 feet at the center. An overhead power cable about 50 feet west of the bridge has a clearance of 80 feet. Caution is advised at the bridge, because cross currents are encountered during both flood and ebb.

(237) The facilities of a drydock and shipbuilding company are on the east bank of the creek, south of the bridge, and on the St. Johns River just eastward of the creek mouth. The firm builds steel-hulled tugs and fishing vessels and does all types of underwater and topside work on commercial and Government vessels; work on pleasure craft, except for very large yachts, is not done here. There is a 4,000-ton marine railway which handles vessels up to 220 feet, several mobile cranes, complete shop facilities, and berths for vessels of up to about 585 feet. The marine railway is on the St. Johns River side of the yard, while the construction work is done on the Sisters Creek side.

(238) The **St. Johns River,** Mile 739.5, is the approach to the important city of **Jacksonville,** 16 miles west of the junction with the Intracoastal Waterway, where complete supply and repair facilities are available. It is described in chapter 9.

(239) The Intracoastal Waterway continues south across St. Johns River and into **Pablo Creek.** An overhead power cable with a clearance of 89 feet crosses the waterway at Mile **741.8.** At **Mile 744.7** the Atlantic Boulevard (State Route 10) highway bridge has a fixed span with a clearance of 65 feet over the waterway. The mean range of tide at the bridge is 2.9 feet. There are strong tidal currents in the immediate vicinity of the bridge. On the flood the current in the channel flows southward and at right angles to the bridge at a velocity of 3.4 knots at strength. On the ebb the current flows northward and sets about 15° to the right of the axis of the channel at a velocity of 5.2 knots at strength. The currents at a distance of 100 yards either side of the bridge are much weaker with practically no turbulence and give no warning of the strong current at the bridge. Current predictions are given in the Tidal Current Tables. An overhead power cable 25 feet north of the bridge has a clearance of 85 feet.

(240) A marina is in the basin on the west side of the waterway just south of the bridge. Transient berths, electricity, gasoline, diesel fuel, water, ice, marine supplies, launch ramp and hull, engine and electronic repairs are available. Mobile lifts to 150 gross ton capacity are available. In July 1991, the reported controlling depth in the approach was 10 feet, with 12 feet in the basin.

(241) An overhead power cable at Mile 745.8 has a clearance of 90 feet.

(242) McCormick (U.S. Route 90) highway bridge across the waterway at **Mile 747.5** has a bascule span with a clearance of 37 feet at the center. (See **117.1 through 117.59 and 117.261**, chapter 2, for drawbridge regulations.) An overhead power cable 35 feet north of the bridge has a clearance of 80 feet.

(243) A yacht basin is on the east side of the waterway just north of the bridge. It has open and covered berthing space for 150 boats of up to 125 feet. Water and electricity are available.

(244) At **Mile 749.5,** a fixed highway bridge with a clearance of 65 feet crosses the creek. In 1988, a fixed bridge with a design clearance of 65 feet was under construction immediately northward of the existing bridge.

(245) Numerous snags and old piling, many covered at high water, are on both sides of the waterway for a distance of about 5.7 miles from the vicinity of **Oak Landing, Mile 749.8,** to **Palm Valley Landing, Mile 755.5.** Particular care should be taken in this section to stay in the center of the channel.

(246) At **Mile 750.1**, the waterway leaves Pablo Creek and enters a long cut.

(247) The Palm Valley/State Route 210 highway bridge crossing the waterway at **Mile 758.8** has a bascule span with a clearance of 9 feet at the center. The mean range of tide at the bridge is 2 feet. A landing at a fish camp is on the east side of the waterway just north of the bridge. Limited berths, water and ice nearby, and a launching ramp are available. In August 2001, a fixed highway bridge with a design clearance of 65 feet was under construction close north of the bascule bridge; upon completion, it will replace the bascule bridge.

(248) The route continues through the long cut to **Tolomato River** at **Mile 760.9.**

(249) **Chart 11485.–Guana River** enters Tolomato River on the east side opposite **Mile 770.5.** A privately marked channel in Guana River leads up to a dam at **South Ponte Vedra Beach** (chart 11489). The reported centerline controlling depth was 4 feet in May 1983.

(250) At **Mile 773.5,** a fish camp has a marine railway that can handle craft up to 60 feet for hull repairs. Emergency gasoline engine repairs can be made, and gasoline and water are available.

(251) At **Mile 775.6**, a channel marked by private daybeacons and a **250°** lighted range leads west to a well-protected marina. Berths, gasoline, diesel fuel, water, ice, marine supplies, and electricity are available. A 37-ton lift is available for hull, engine, and electronic repairs; welding and canvas fabrication is also available.

(252) **Note.–**In September 1998, severe shoaling had occurred in the Intracoastal Waterway from **Mile 775** southward to **Mile 780**, including the area crossing St. Augustine Inlet. Mariners are advised to seek local knowledge before transiting this area.

(253) The **Vilano Beach** (State Route A1A) highway bridge crossing the Tolomato River at **Mile 775.8** has a fixed span with a clearance of 65 feet. The mean range of tide at the bridge is 4.2 feet. Tidal currents run at angles to the bridge and caution is imperative. Flood currents up to 1 knot and ebb currents up to 1.5 knots may be expected during normal weather. An overhead power cable 70 yards south of the bridge has a clearance of 100 feet.

(254) The waterway continues on beyond St. Augustine Inlet and enters **Matanzas River**; the river separates **Anastasia Island** from the mainland. At **Mile 777.9,** State Route A1A highway bridge, known as the **Bridge of Lions,** and which connects Anastasia Island with St. Augustine, has a bascule span with a clearance of 25 feet at the center. (See **117.1 through 117.59 and 117.261**, chapter 2, for drawbridge regulations.) The range of tide at the bridge is 4.2 feet. Caution is advised because the tidal currents, particularly ebb, run at right angles to the bridge. It is advisable to drift large tows through this opening at slack water. Normal flood currents of 1 knot and ebb currents of 1.5 knots may be expected.

(255) **Note.–**Tidal predications for the area around the Bridge of Lions are unattainable due to the lack of a local Tidal Current Station. Because of this, NOS cannot make accurate predictions. Several mishaps involving the bridge being hit by vessels which have lost maneuvering control during periods of Ebb currents, have occurred. Caution is advised when transiting the area.

(256) **St. Augustine Inlet** and **St. Augustine** are described in chapter 10.

(257) In the broader sections of the river above St. Augustine, the channel is very narrow and contorted, extending between shoals visible at low water.

(258) **San Sebastian River** flows into Matanzas River at **Mile 780.0** and is described in chapter 10.

(259) A fixed highway bridge at **Mile 780.4** has a clearance of 65 feet.

(260) At **Mile 788.6, Crescent Beach** (State Route 206) highway bridge over Matanzas River has a bascule span with a clearance of 25 feet at the center. Gasoline may be obtained by shallow-draft boats at a fishing camp just south of the bridge on the east side of the waterway. Several fish camps are farther south of the bridge.

(261) About a mile northward of Matanzas Inlet, near **Mile 792.3,** the waterway leaves Matanzas River and enters a land cut.

(262) **Caution.–**It is reported that navigation in the Intracoastal Waterway opposite the breakthrough at Matanzas Inlet at about **Mile 794.0** is hazardous during flood and ebb tides. Signs reading "DANGER TURBULENT WATER" have been placed on the north and south of the inlet to warn mariners of this condition. Also, in February-April 1992, severe shoaling was reported in this area.

(263) Matanzas River continues eastward and southward about 1.2 miles to Matanzas Inlet. Route A1A highway bridge crossing the inlet has a 41-foot fixed span with a clearance of 10 feet. The inlet is described in chapter 10. Route A1A highway bridge crossing Matanzas River about 0.8 mile southward of the inlet has a 31-foot fixed span with a clearance of 12 feet; the one crossing the river 1 mile farther south has a 29-foot fixed span with a clearance of 12 feet. The overhead power cables at these bridges have a minimum clearance of 32 feet.

(264) About 2 miles southward of Matanzas Inlet near **Mile 796.0**, the Intracoastal Waterway re-enters Matanzas River. At **Mile 796.6** is the oceanarium at **Marineland** where many types of marine life are exhibited; an admission fee is charged. On the east side of the waterway a privately marked channel, with a reported controlling depth of 7 feet in August 1993, leads to the Marineland marina and boat slip. Berths at the marina are just southward of the boat slip. Depths of 6½ feet are reported alongside. Gasoline, diesel fuel, and limited marine supplies are available.

(265) A small-craft facility is on the south side of a private canal that leads westward from the waterway at **Mile 802.8.**

(266) At **Mile 803.0**, a high level fixed highway bridge with a clearance of 65 feet crosses the waterway. An overhead power cable with a clearance of 85 feet crosses the waterway at **Mile 803.6.** State Route 100 highway bridge at **Flagler Beach, Mile 810.6,** is a fixed highway bridge with a clearance of 65 feet. Overhead power and television cables 70 feet north of the bridge have a clearance of 85 feet.

(267) The Highbridge Road bridge at **Mile 816.0** has a bascule span with a clearance of 15 feet at the center. An overhead power cable 25 feet north of the bridge has a clearance of 85 feet.

(268) The waterway enters **Halifax River at Mile 818.4** and continues to **Ormond Beach.** A yacht basin at **Mile 821.8** has a 35-ton mobile hoist that can handle craft up to 55 feet; hull and engine repairs can be made. A machine shop and carpenter shop are on the premises. Berthage with electricity, gasoline, diesel fuel, water, ice, a launching ramp, and marine supplies are available. In May 1983, depths of 5 feet are reported in the approaches and alongside the berths. The Ormond Beach Bridge over the waterway at **Mile 824.9** has a fixed span with a clearance of 65 feet.

(269) Twin fixed bridges cross the waterway at **Mile 829.1** with a clearance of 65 feet.

(270) **Daytona Beach, Mile 830.0,** is a large resort city with stores, motels, hotels, and restaurants. The city has excellent yacht facilities, and marine supplies can be obtained.

(271) Main Street Bridge at **Mile 829.7** has a bascule span with a clearance of 22 feet at the center. (See **117.1 through 117.59 and 117.261**, chapter 2, for drawbridge regulations.) Broadway Bridge has a fixed span that crosses the waterway at **Mile 830.1** with a clearance of 65 feet. Memorial Bridge at **Mile 830.6** has a clearance of 21 feet at the center. (See **117.1 through 117.59 and 117.261**, chapter 2, for drawbridge regulations.)

(272) Just south of the fourth bridge at **Mile 830.7,** a marked channel leads westward from the waterway to the City Dock on the north side of the Municipal Yacht Basin. In August 1986, the channel had a reported controlling depth of 5½ feet on the centerline. There are several berths on the east and south sides of the basin with reported depths of 6½ feet alongside. Water, ice, and electricity are available; meals and lodging are nearby. At the Halifax River Yacht Club, which is on the west side of the basin, reciprocal courtesies are extended to visiting members of other yacht clubs. Berths with electricity, water, and ice are available. In March 2000, a depth of 8 feet was reported alongside.

(273) At **Mile 831.0,** a privately dredged channel marked by private daybeacons leads west to a small-craft harbor. In February 2000, the reported controlling depths were 8 feet in the entrance channel and in the basin.

(274) **Weather, Daytona Beach and vicinity**.–The nearness to the ocean results in a climate tempered by winds off the water. Summer temperatures, which reach 90°F (32.2°C) or more on an average of 55 days each year, are often cooled below 90°F (32.2°C) by an early afternoon sea breeze. The average high temperature for Daytona Beach is 80°F (26.7°C) and the average low temperature is 61°F (161.1°C). By a fraction of a degree, July is the warmest month with an average high of 90°F (32.2°C) and an average low of 72°F (22.2°C). January is the coolest month with an average high of 69°F (20.6°C) and an average low of 47°F (8.3°C). Temperatures of 100°F (37.8°C) have been recorded in each month, May through August. The extreme maximum temperature for Daytona Beach is 102°F (38.9°C) recorded in July

1981. Freezing temperatures are uncommon with an average of only two days each year recording an extreme minimum below 32°F (0°C) and only 11 days recording an extreme minimum below 45°F (7.2°C). The coolest temperature on record at Daytona Beach is 15°F (-9.4°C) recorded in January 1985.

(275) Frequent afternoon showers and thunderstorms (13-18 days per month) also help cool things off in addition to accounting for about 60 percent of the annual precipitation from June through mid-October. Average annual rainfall at Daytona Beach is 49 inches (1,244.6 mm). August is the wettest month averaging nearly 6.5 inches (165.1 mm) and December is the driest month averaging about 2.5 inches (63.5 mm). Snowfall is rare and an accumulation has never occurred however, trace amounts have been recorded in each month, December through February. Heavy fog is most likely during winter and early spring. These radiation fogs usually form at night and dissipate after sunrise. On rare occasions, a sea fog moves in and persists for 2 or 3 days.

(276) While tropical cyclones are a threat mainly from June through October, hurricane force winds can be expected once in 30 years on the average. At this latitude and location, hurricanes usually either pass well offshore or have weakened from an overland trip from the southwest or west. Of the 59 tropical cyclones that threatened Daytona Beach during the period 1842-1995, 47 occurred during the months August, September, and October. By a narrow margin, the greatest occurrence is in September. The predominate direction from which the storm arrives is from the South or Southwest. Since 1950, 22 storms have come within 50 nm (92.6 km) of Daytona Beach. Hurricane Donna is likely the most memorable storm to effect the Daytona Beach area in recent memory. On September 11, 1969, Donna crossed the central Keys moving to the northwest and abruptly turned northward crossing the southwest Florida coast near Naples. From there, Donna continued north-northeastward, up the spine of the peninsula, moving back out over open water north of Daytona Beach. The maximum wind at landfall was estimated near 135 miles per hour with gusts to 150 miles per hour and winds were still 90 miles per hour by the time the storm reached the Daytona Beach area.

(277) (See page T-9 for **Daytona Beach climatological table.**)

(278) The primary facilities for yachts, other than the Halifax River Yacht Club is at 0.3 mile south of Seabreeze Bridge at **Mile 829.4**, and is used primarily for docking, and fueling.

(279) The entrance channel to the other marina and boat works leaves the Intracoastal Waterway 0.5 mile south of the entrance to Halifax River Yacht Club at **Mile 831.2**, has a marked channel, which had a reported controlling depth of 7 feet in August 1993. There are 350 open and covered berths which can accommodate vessels up to 90 feet in length. Depths of 7 feet are reported alongside, and gasoline, diesel fuel, water, ice, electricity, and marine supplies are available.

(280) State Route A1A bridge across the waterway at **Port Orange Mile 835.5,** is a fixed bridge with a clearance of 65 feet. A boatyard and a marina are on the east side of the waterway, north of the bridge. The boatyard 0.3 mile north of the bridge and the marina adjacent to the bridge have gasoline, diesel fuel, water, ice, electricity, and marine supplies. Mobile hoists to 30 tons that can handle craft to 50 feet are available at the boatyard; hull, engine, and electronic repairs can be made. Machine and carpenter shops are on the premises. Reported depths of 8 feet and 3 feet are alongside the boatyard and marina, respectively.

(281) The waterway continues down the Halifax River to **Mile 840.0** where it enters **Ponce de Leon Cut.** Strong cross currents may be felt at times in this cut, due to the currents from **Spruce Creek** veering from one side to the other.

(282) **Inlet Harbor,** 0.5 mile southeast of the waterway at **Mile 839.6,** is a small fishing port. In May 1983, the reported controlling depth from the waterway to the harbor was 8 feet, thence 5 feet or more to the community of Ponce Inlet. The channel is along the north shore and is not marked. The wharf at Inlet Harbor has depths of about 8 feet alongside. Berthage with electricity, gasoline, diesel fuel, water, ice, and marine supplies are available. A marine railway here can handle craft to 65 feet for hull, engine, and electronic repairs.

(283) At the community of **Ponce Inlet,** about 1 mile below Inlet Harbor inside the north side of Ponce de Leon Inlet, there are several small-craft facilities where berthage with electricity, gasoline, diesel fuel, water, ice, and some marine supplies are available. A boatyard here has a marine railway that can handle craft to 60 feet for hull, engine, and electronic repairs.

(284) Ponce de Leon Inlet is described in chapter 10.

(285) The waterway leaves Ponce de Leon Cut and enters **Indian River North** at **Mile 843.5,** about a mile southward of Ponce de Leon Inlet, and follows the river southward for about 15.5 miles through the marshes to Mosquito Lagoon. In some places the river is narrow and crooked, requiring careful steering and close attention to the channel daybeacons.

(286) At **Mile 845.0**, there is a bascule span (SR44) with a clearance of 24 feet at the center.

(287) At **New Smyrna Beach, Mile 846.1,** are several small-craft facilities and the Municipal Yacht Basin. (See the small-craft facilities tabulation on chart 11485 for services and supplies available.)

(288) The Harris Saxon Bridge at **Mile 846.5** is a fixed bridge with a clearance of 65 feet. During flood (southerly flow) current from Sheephead Cut makes a cross current in a westerly direction north of the bridge. Boats with tows proceeding southward during a flood current are advised to allow for the cross current. An overhead power cable close northward of the bridge has a clearance of 85 feet.

(289) The Intracoastal Waterway through Mosquito Lagoon and Indian River is through open water making the route rough at times, particularly during strong winds.

(290) At **Mile 868.5**, the waterway enters **Haulover Canal,** a cut through the 0.4 mile-wide strip of land separating Mosquito Lagoon from the Indian River. Jetties, which have brush-covered sand deposits piled along their outer sides, extend almost 0.4 mile from shore at each end of the cut, giving the canal a total length of about 1.2 miles.

(291) Wind tides are quite pronounced at times producing strong currents in the canal. Southerly winds will build up the water level on the Indian River side of the canal and at the same time lower the water level on the Mosquito Lagoon side. Northerly winds will cause the reverse effect. At such times the normal water level varies as much as 2 feet, with currents through the channel up to 1.5 knots setting in the direction of the wind.

(292) At **Mile 869.2,** a highway bridge crosses near the center of Haulover Canal; the bridge has a bascule span with a clearance of 27 feet at the center. Overhead power cables northeastward of the bridge have clearances of 85 feet. If a vessel must stop before passing through the bridge and a strong current is running, care should be taken to prevent setting against the rocky sides of the canal.

(293) **Manatees.**–Regulated speed zones for the protection of manatees are in Haulover Canal and in Bairs Cove (28°44.0'N., 80°45.4'W.) on the southeast side of the canal. (See Manatees, chapter 3.)

(294) At **Mile 869.8,** the waterway enters **Indian River,** which extends southward for about 119 miles from Haulover Canal to St. Lucie Inlet. In general, it is a broad lagoon quite shallow in places. The spoil banks alongside the channel have built up in recent years and now appear as small islets on which are mangrove and other trees.

(295) The river is nontidal except in the vicinity of Fort Pierce and for a short distance above the St. Lucie Inlet where the depth may vary as much as 2 feet under the influence of strong northerly and southerly winds.

(296) **Merritt Island National Wildlife Refuge** is on **Merritt Island** on the east side of the northern part of Indian River.

(297) At **Mile 876.6,** a causeway and railroad bridge across the waterway has a bascule span with a clearance of 7 feet. The span is automatically operated; it is normally in the open position, but will close on the approach of trains. (See **117.1 through 117.59 and 117.261**, chapter 2, for drawbridge regulations.)

(298) A well-protected yacht basin is at **Titusville, Mile 878.4;** the basin is connected to the waterway by a marked dredged channel had a reported approach depth of 6 feet in February 2002. Marinas in the basin provide berths with electricity, gasoline, diesel fuel, water, ice and a launching ramp. Hull, engine, and electronic repairs are available; the marina at the south end of the basin has a 50-ton lift.

(299) The principal industries at Titusville are fishing, tourism, and the growing of citrus fruits; the town is on a principal public highway approach to the John F. Kennedy Space Center at Cape Canaveral. State Route 402 highway bridge (locally known as Titusville swing bridge) across the waterway here has a swing span with a clearance of 9 feet. (See **117.1 through 117.59 and 117.261(k)**, chapter 2, for drawbridge regulations.)

(300) **Manatees.**–A regulated speed zone for the protection of manatees is in Banana Creek at the north end of Merritt Island east of **Mile 880.5. (See Manatees, chapter 3.)**

(301) NASA Parkway (State Route 405-locally known as Addison Point bridge) crossing the waterway at **Mile 885.0** has a bascule span with a clearance of 27 feet at the center. (See **117.1 through 117.59 and 117.261**, chapter 2, for drawbridge regulations.) An overhead power cable at **Mile 888.6** has a clearance of 85 feet over the main channel and 45 feet elsewhere between **Jones Point** and **Pine Island.**

(302) **Manatees.**–Regulated speed zones for the protection of manatees are in the vicinity of powerplants at **Delespine, Mile 887.4,** and **Frontenac, Mile 889.1.** (See Manatees, chapter 3.)

(303) An overhead power cable at **Mile 893.6** has a clearance of 85 feet over the main channel and 45 feet elsewhere, between **City Point** and Merritt Island.

(304) **Charts 11485, 11478, 11484.–Canaveral Barge Canal, Mile 893.8,** connects the Intracoastal Waterway with Port Canaveral described in chapter 10. A Federal project provides for a 12-foot channel from the Intracoastal Waterway through land cuts in Merritt Island, thence across Banana River, thence through a barge lock, and thence to the deepwater turning basin at Port Canaveral. (See Notice to Mariners and latest editions of the charts for controlling depths.) The lock, about 1.5 miles westward of the turning basin, has a width of 90 feet and a length of 600 feet, and is in operation between the hours of 0600 and 2130 daily. (See **207.160**, chapter 2, for canal and lock regulations.) Vessels are required to tie up fore and aft to the south wall inside the lock, allowing sufficient slack in the lines to provide for a rise or fall of water of about 4 feet. Vessels are restricted from using the lock while a petroleum barge is in passage. Smoking is prohibited within the lock. The channel is well marked by aids to navigation. Limiting clearances are 21 feet at the center for the State Route 401 drawbridges and 65 feet for the overhead power cables. (See **117.1 through 117.59 and 117.273**, chapter 2, for drawbridge regulations.)

(305) A fish camp and several marinas are on the south side of Canaveral Barge Canal, both eastward and westward of State Route A1A highway bascule bridge. Berthage with electricity, diesel fuel, water, ice and a launching ramp are available.

(306) Several marinas are in the dredged basin on the south side of the barge canal opposite **West Basin**. Berths with gasoline, diesel fuel, electricity, launching ramps, pump-out stations, water, and ice are available; lifts to 75 tons are available for hull, engine, and electronic repairs.

(307) State Route 528 causeway and bridges crossing Indian River at **Mile 894.0** have twin fixed spans with clearances of 65 feet over the main channel, and twin 30-foot fixed spans over a relief channel at the west end of the causeway with clearances of 12 feet.

(308) At **Cocoa, Mile 897.4,** a causeway and twin fixed bridges with clearances of 65 feet cross the waterway. An overhead power cable about 0.1 mile southward of the bridges has a clearance of 88 feet over the main channel.

(309) Northward of and parallel with the causeway on the east side of Indian River, a privately marked and dredged channel, which had a reported approach depth of 4 feet in August 2001, leads to a yacht basin. A marina is at the southeast end of the basin, and a small-craft facility is on the north side. In August 2001, 4 to 5½ feet was reported alongside the piers. Berths with electricity, water, and ice are available; a lift to 12 tons is available for hull repairs.

(310) On the west side of Indian River just north of the causeway, a privately marked channel leads to a marina. In May 1983, the reported controlling depth in the channel was 7 feet at midchannel. Berths with electricity, water, ice, and marine supplies are available. A 37-ton lift is available for hull, engine, and do-it-yourself repairs.

(311) At **Mile 901.5,** a privately maintained channel marked by a private unlighted range and daybeacons leads to a marina on Merritt Island. In September 2001, an approach depth of 6 feet and an alongside depth of 4 feet were reported. Berths are available with electricity and water.

(312) At **Mile 909.0,** the twin fixed spans of the Pineda Expressway have a clearance of 65 feet over the main channel of Indian River.

(313) **Charts 11485, 11472, 11484, 11476.**–At **Mile 910.7** on the west side of Indian River, a privately marked channel leads to a small yacht basin which has berths for boats up to 50 feet; depths of 6 feet are reported alongside. Berths with electricity, gasoline, diesel fuel, water, ice, and marine supplies are available. Engine and electronic repairs can be made.

(314) At **Mile 914.1,** State Route 518 causeway fixed highway bridge crosses Indian River and has an authorized clearance of 65 feet.

(315) **Banana River** has its southern entrance at Mile 914.2 opposite Melbourne (formerly Au Gallie). The north side of the river mouth is marked by a large green statue of a dragon on the south tip of Merritt Island. The river is used by small boats as a harbor of refuge during hurricanes and storms. In 1976-1978, the controlling depth was 3 feet from the entrance of the river for about 16 miles to the junction with the Canaveral Barge Canal. Mariners are cautioned to carefully follow the marked channel, because there is severe shoaling along the edges in some places.

(316) A marina on the south side of the entrance to Banana River has gasoline, diesel fuel, ice, water, electricity, marine supplies, and a 20-ton mobile hoist. Hull, engine, and electronic repairs can be made. In May 1983, reported depths of 5½ could be carried in the approach by favoring the north side; local knowledge is advised. The Eau Gallie Yacht Club, which has excellent facilities for yacht club members, is in the basin on the east side of the river just inside the entrance.

(317) A highway bridge across the Banana River about 0.5 mile above the entrance has a swing span with a clearance of 7 feet. (See **117.1 through 117.59 and 117.263**, chapter 2, for drawbridge regulations.) A marina on the east side of the river immediately southward of the bridge has about 60 berths with reported depths of 5 feet alongside. Gasoline, diesel fuel, water, ice, electricity, marine supplies, and a 60-ton mobile hoist are available; hull and engine repairs can be made. A motel is adjacent to the marina.

(318) Twin fixed highway bridges with clearances of 43 feet over the channel cross Banana River about 4.3 miles above the mouth.

(319) An Air Force **prohibited area** is at the base on the east bank of the Banana River about 5.8 miles above the mouth. (See **334.560**, chapter 2, for limits and regulations.)

(320) **Newfound Harbor** is at the southeastern end of Merritt Island, 10 miles above the entrance to Banana River. The harbor is shoal and about 4 miles long in a north-south direction. Several shoals and obstructions have been reported in Newfound Harbor. About 3.7 miles above the entrance, State Route 520 highway bridge has a 35-foot fixed span with a clearance of 7 feet.

(321) Across the entrance to **Sykes Creek** at the north end of Newfound Harbor there is a highway bridge that has a 30-foot fixed span with a clearance of 15 feet. An overhead power cable close northwestward of the bridge has a clearance of 23 feet. About 0.1 mile above the bridge, the center and southern sections of a former bridge have been removed; the northern portion remains as a fishing pier. Twin 30-foot fixed span highway bridges with clearances of 15 feet cross the creek about 2.2 miles above the mouth. A 37-foot fixed span bridge with a clearance of 16 feet crosses the creek about 2.8 miles above the mouth.

(322) A marina is on the west side of Banana River about 12 miles above the southern entrance, and 2.1 miles north of **Buck Point,** the eastern entrance point of Newfound Harbor. Berthage with electricity, water, a 30-ton mobile hoist, and a 50-foot marine railway are available; hull, engine, electronic, and rigging repairs can be made. Depths of 4½ feet are reported in the approach, and 8 feet alongside the berths.

(323) Cocoa Beach causeway (State Route 520), crossing the Banana River, 3.5 miles north of Buck Point, has a fixed span with a clearance of 36 feet.

(324) About 16 miles above the entrance and 6.4 miles north of Buck Point, the Banana River is crossed by U.S. Route A1A causeway and bridges. The twin fixed spans over the main river channel have a clearance of 36 feet; the 30-foot twin spans over the relief channel at the west end of the causeway have clearances of 14 feet.

(325) About 0.2 mile northward of U.S. Route A1A causeway-bridges, the Canaveral Barge Canal crosses the river channel and leads east to Port Canaveral. **Saturn Barge Channel** extends northward from Canaveral Barge Canal to the head of Banana River and to two side channels leading eastward and westward to basins at missile test installations; a side channel, extending eastward from the Saturn Barge Channel, 5 miles northward of the Canaveral Barge Canal, leads to a basin on the cape. The basin is within a **restricted area.** (See **334.550**, chapter 2, for limits and regulations.) The channels are marked by lights, daybeacons, and buoys, and had a controlling depth of 12 feet in 1977-1978. In November 1983, shoaling to an unknown extent was reported on the south side of the west side channel in about 28°35'33"N., 80°36'58"W.; the shoal is marked by a daybeacon. An overhead power cable crosses Saturn Barge Channel about 0.6 mile northward of Canaveral Barge Canal with a clearance of 65 feet.

(326) **Manatees.**–A regulated speed zone for the protection of manatees is in the channel and basin at the small-craft harbor on the west side of Banana River at **Audubon,** 1.5 miles north of Canaveral Barge Canal. The area on the east side of the river immediately south of the NASA Parkway is closed to motorized craft from April 1 through November 14 annually. (See Manatees, chapter 3.)

(327) A **Security Zone** has been established to include certain land and water areas at Port Canaveral-Cape Canaveral and adjacent areas at John F. Kennedy Space Center, including portions of Indian River and Banana River. (See **165.1 through 165.7, 165.30, 165.33, and 165.701**, chapter 2, for limits and regulations.)

(328) Banana River above the Canaveral Barge Canal and the adjacent land areas are within a Security Zone. Limits and regulations are given under the description of Cape Canaveral in chapter 10.

(329) A **prohibited area** in upper Banana River, about 3 miles above the Canaveral Barge Canal, is adjacent to a missile-test annex. (See **334.540**, chapter 2, for limits and regulations.)

(330) The NASA Parkway (State Route 405) causeway and bridge crosses Banana River 6.5 miles above the Canaveral Barge Canal. The bridge has a bascule span over the navigation channel with a clearance of 24 feet at the center. (See **117.1 through 117.59 and 117.263**, chapter 2, for drawbridge regulations.) A NASA space center **restricted area** is just north of the NASA Parkway causeway. (See **334.570**, chapter 2, for limits and regulations.) An overhead power cable with a clearance of 85 feet crosses the river about 3.0 miles north of the NASA Parkway causeway bridge.

(331) **Chart 11472.**–The Intracoastal Waterway continues through Indian River southward for about 74 miles to St. Lucie Inlet.

(332) The highway causeway (State Route 518) crossing the river at **Melbourne** at **Mile 914.4** has a fixed span across the Intracoastal Waterway with a clearance of 65 feet. About 200 yards south of the bridge, an overhead power cable crosses the waterway with a clearance of 90 feet at the main channel. An overhead cable on the south side of the relief bridge at the east end of the causeway has a clearance of 35 feet.

(333) About 0.5 mile south of the causeway at **Mile 914.9,** a dredged, marked channel leads to a yacht basin inside the mouth

of **Eau Gallie River.** In September 2001, the reported controlling depth was 10 feet in the entrance channel and in the basin except for lesser depths to 3½ feet along the edges. General depths in the area where the river widens between the yacht basin and U.S. Highway 1 bridge crossing, are 3 feet. The basin and the area close E afford good shelter from storms. A city ordinance restricts speed to no wake in Eau Gallie River. Several marinas and a boatyard are in the basin. (See the small-craft facilities tabulation on chart 11472 for services and supplies available.)

(334) About 0.5 mile above the mouth of Eau Gallie River, U.S. Route 1 highway bridge has a fixed span with a clearance of 12 feet. About 0.1 mile above the highway bridge, the Florida East Coast railroad bridge has a 44-foot fixed span with a clearance of 12 feet.

(335) At **Mile 916.7,** a privately marked channel leads from the waterway to a marina on the west side of Indian River. Berths with electricity, gasoline, diesel fuel, water, ice, and marine supplies are available. A 3-ton forklift can haul out craft for hull, engine, and electronic repairs. In May 1999, the channel to the marina had a reported controlling depth of 6 feet.

(336) At **Mile 918.2,** State Route 516 causeway at Melbourne has dual high-level fixed bridges with clearances of 65 feet across the Intracoastal Waterway.

(337) At **Mile 918.7,** about 0.5 mile south of the bridges, a marked channel leads westward from Indian River to a turning basin inside the mouth of **Crane Creek.** In December 1991-January 1992, the controlling depth was 5½ feet in the S half and 6 feet in the N half of the entrance with 8 feet in the turning basin. A marina on the N side of the creek has berths with electricity, gasoline, diesel fuel, water, ice, marine supplies, sewage pump-out, and harbormaster services. The **harbormaster** may be reached by telephone (321) 725-9054.

(338) About 0.2 mile above the mouth of Crane Creek, U.S. Route 1 highway bridge has a 36-foot fixed span and a clearance of 15 feet. About 175 yards westward of the highway bridge, the Florida East Coast railroad bridge has a 40-foot fixed span and a clearance of 14 feet. Overhead power cables close westward and 500 yards westward of the railroad bridge have clearances of 25 and 40 feet, respectively.

(339) At **Mile 921.2,** an overhead power cable with a clearance of 95 feet, crosses the waterway at the main channel.

(340) **Turkey Creek** is on the west side of Indian River at **Mile 921.3.** About 0.5 mile above the entrance, U.S. Route 1 highway bridge has a 34-foot fixed span with a clearance of 15 feet. About 300 yards above the highway bridge, the Florida East Coast railroad bridge has a fixed span with a clearance of 10 feet. Overhead power cables at the railroad bridge have a minimum clearance of 21 feet. A shoal, bare at low water, is in the middle of the entrance to Turkey Creek. In May 1983, a depth of 3 feet was reported in the natural channel to the eastward of the shoal area.

(341) **Manatees.–**A regulated speed zone for the protection of manatees is in Turkey Creek. (See Manatees, chapter 3.)

(342) Two marinas are on the southern part of Turkey Creek between the two bridges. Berthage with electricity, gasoline, a launching ramp, water, marine supplies, and a 14-ton lift are available for hull and engine repairs. In June 2001, 4 feet was reported alongside the berths.

(343) A yacht basin is on the west side of the Indian River at **Mile 934.1**. Berths, gasoline, diesel fuel, water, electricity, and a lift to 40-tons are available. In 1999, a depth of 6 feet was reported in the approach channel and alongside.

(344) At **Mile 935.0,** a marina on the east side of the river has berthage with electricity, water, ice, and a launching ramp. In December 2000, an approach depth of 3 feet and an alongside depth of 5 feet were reported.

(345) **Saint Sebastian River Mile 935.4,** is used by local fishing boats going to **Roseland,** 1.1 miles above the mouth. U.S. Route 1 highway bridge across the entrance to the creek has a 43-foot fixed span with a clearance of 13 feet; avoid the piles of the old bridge 0.3 mile upstream. About 1 mile above the highway bridge, the Florida East Coast railroad bridge has a 46-foot fixed span with a clearance of 12 feet. Two overhead power cables at the railroad bridge, one on the east side and the other on the west side, have clearances of 17 feet and 60 feet, respectively. About 300 yards above the railroad bridge an overhead power cable has a clearance of 23 feet.

(346) A marina is on the north side of Saint Sebastian River, just westward of U.S. Route 1 highway bridge. Gasoline, water, ice, limited marine supplies, and a launching ramp are available.

(347) **Pelican Island National Wildlife Refuge** is on the east side of the waterway between **Mile 936.3** and **Mile 942.8.**

(348) **Sebastian** is a fishing town at **Mile 938.3.** There are two small marinas here which have gasoline, diesel fuel, ice, water, and limited berthing facilities. In August 2001, an approach depth of 6 feet was reported to the marinas. A 40-ton lift is available at the northerly marina. A **special anchorage** is off the town of Sebastian. (See **110.1, and 110.73a**, chapter 2, for limits and regulations.)

(349) A fixed highway bridge across the waterway at **Mile 943.3** near **Wabasso** has clearance of 65 feet. The bridge and causeway between the mainland and the island westward of the Intracoastal Waterway has a 46-foot center span with a clearance of 9 feet. A channel, reportedly marked by private aids, leads to a marina on the west side of the waterway just below the highway bridge. An overhead power cable crossing Indian River on the north side of the Wabasso causeway, with a clearance of 40 feet from the mainland to the bridge, is submerged at the Intracoastal Waterway, thence a clearance of 50 feet to the eastern shore of the river.

(350) The waterway is crooked and subject to strong currents in narrow places from about 1 mile north of the Wabasso Bridge to about 4 miles south of it. Caution must be observed at the bends where vision is limited.

(351) At **Mile 946.3,** a privately marked channel, with a reported controlling depth of 6 feet in May 1983, leads off to the northwestward to a waterfront development at **Hobart Landing,** about a mile south of Wabasso. An overhead power cable with a clearance of 14 feet crosses the channel.

(352) **Vero Beach, Mile 951.9,** is an active ocean resort and yachting center. A high level fixed highway bridge over the waterway here has a reported clearance of 65 feet. A **special anchorage** is about 0.8 mile northeast of Vero Beach just inside a channel leading northeastward then northerly from the waterway to the mouth of **Bethel Creek.** (See **110.1 and 110.73(b),** chapter 2, for limits and regulations.)

(353) About 0.2 mile north of the bridge, a marked channel leads eastward from the waterway for about 0.4 mile to a turning basin off several small-craft facilities. In 1999, the reported approach and alongside depth was 8 feet. There are small-craft facilities on both sides of the waterway at Vero Beach. (See the small-craft facilities tabulation on chart 11472 for services and supplies available.) About 0.4 mile southward of the bridge, a

channel leads east from the waterway to Riomar Bay Yacht Club. There are about 36 berths with reported depths of 8 feet. Gasoline, diesel fuel, ice, water, electricity, and complete clubhouse and recreation facilities are available.

(354) From Vero Beach to the St. Lucie Inlet the Indian River is broad and quite shallow, but the Intracoastal Waterway route is well marked and easy to follow. Spoil banks parallel the channel at a distance of several hundred yards and are mostly covered with mangrove and a few Australian pines.

(355) A fixed highway bridge with a clearance of 65 feet crosses the waterway at **Mile 953.2.**

(356) Overhead power cables at **Mile 953.2** and **Mile 954.9** have clearances of 85 feet.

(357) **Manatees.**–A regulated speed zone for the protection of manatees is in the vicinity of the powerplant at Vero Beach at **Mile 953.2.** (See Manatees, chapter 3.)

(358) State Route A1A highway bridge north of Fort Pierce at **Mile 964.8** has a bascule span with a clearance of 26 feet at the center.

(359) **Fort Pierce, Mile 965.6,** has supply and repair facilities. The town and Fort Pierce Inlet are described in chapter 10.

(360) At **Mile 965.8,** State Route A1A fixed highway bridge crossing the waterway at Fort Pierce has a clearance of 65 feet. There is a strong crosscurrent at this bridge. Vessels proceeding north or south should approach the bridge with caution. At all times maintain sufficient headway to avoid being carried against the fender system. An overhead power cable south of the bridge has a clearance of 85 feet.

(361) **Manatees.**–A regulated speed zone for the protection of manatees is in the vicinity of the power plant at Fort Pierce at **Mile 966.1.** (See Manatees, chapter 3.)

(362) At **Mile 966.5,** a channel marked by private daybeacons leads to the municipal marina. Berthing, electricity, gasoline, diesel fuel, water, ice, pump-out facilities, and nautical supplies are available. A depth of 8 feet was reported in the approach and alongside the piers in September 2001. The harbormaster may be contacted via VHF-FM channels 9 and 16 or by calling 772-464-1245.

(363) An overhead power cable at **Mile 968.6** has a clearance of 85 feet.

(364) Overhead power cables at **Mile 974.2** have clearances of 90 feet across the channel and 60 feet elsewhere.

(365) **Jensen Beach, Mile 981.4,** is a winter resort on the west bank of the Indian River. State Route 707A highway bridge (locally known as Jensen Road bridge) crossing the waterway here has a bascule span with a clearance of 24 feet at the center. (See **117.1 through 117.59 and 117.261**, chapter 2, for drawbridge regulations.)

(366) At **Mile 982.8,** a privately dredged channel marked by private daybeacons leads westward from the waterway to a marina in a protected basin. In September 2001, the reported approach and alongside depth was 5 feet. The marina provides water, long-term dockage, and a lift to 8 tons for hull, engine, and electronic repairs.

(367) At **Mile 983.5,** a dredged channel marked by private daybeacons leads from the Intracoastal Waterway to a marina in a small protected basin. In September 2001, the reported approach and alongside depth was 7 feet. Gasoline, diesel fuel, water, ice, and electricity are available.

(368) State Route A1A highway bridge (locally known as Indian River bridge) across the waterway at **Mile 984.9** has a bascule span with a clearance of 28 feet at the center. (See **117.1 through 117.59 and 117.261**, chapter 2, for drawbridge regulations.) At **Mile 985.0**, a channel marked by private daybeacons leads eastward from the waterway to a marina on the east side of Indian River near the foot of the bridge. Berthage with electricity, gasoline, diesel fuel, water, ice, and marine supplies are available.

(369) The junction of the Intracoastal Waterway and Okeechobee Waterway is at **St. Lucie Inlet, Mile 987.8.** St. Lucie Inlet and River, Port Salerno, Port Sewall, and Stuart are described in chapter 10.

(370) Extreme caution is advised when crossing St. Lucie River. Cross currents will give a vessel an east or west set, depending on the direction and velocity of the current in the river. Vessels should be able to stay in the channel by using the ranges on each side of the intersection. To make a turn from the Intracoastal Waterway into St. Lucie River or vice versa, allowance must be made for the cross currents to prevent swinging too wide or too short.

(371) **Chart 11428.–Okeechobee Waterway.–**From its junction with the Intracoastal Waterway in St. Lucie Inlet, Okeechobee Waterway follows St. Lucie River westward to South Fork, through South Fork and St. Lucie Canal, and enters Okeechobee Lake at Port Mayaca. It crosses the southern part of the lake and exits at Moore Haven into Caloosahatchee Canal and thence into Caloosahatchee River, San Carlos Bay, and the Gulf of Mexico. From San Carlos Bay, the Gulf section of the Intracoastal Waterway follows an inside route along the west coast of Florida to Anclote River, thence outside to Carrabelle Ship Channel in St. George Sound, and thence inside again through the remainder of Florida, Alabama, Mississippi, Louisiana, and Texas to Brownsville. The Gulf section is described in **United States Coast Pilot 5, Atlantic Coast–Gulf of Mexico, Puerto Rico, and Virgin Islands.**

(372) **Mileage** in the Okeechobee Waterway is measured westward from Mile 0.0 at the Intracoastal Waterway junction in St. Lucie Inlet. The total length of the Okeechobee Waterway is about 155 miles from the Atlantic Waterway to the Gulf of Mexico. Mileage signs (statute miles) have been erected at the five locks.

(373) **Distances along the Okeechobee Waterway are in statute miles to facilitate reference to the small-craft charts; all other distances are in nautical miles. Mileage conversion tables are on page T-23.**

(374) **Channel.–**The Federal project for the Okeechobee Waterway provides for a channel with a depth of 8 feet from the Intracoastal Waterway near Stuart via Okeechobee Lake Route 1 to Fort Myers; thence 10 feet to Punta Rassa; thence 12 feet to the Gulf of Mexico; a channel 6 feet deep in Taylor Creek from the town of Okeechobee to the lake, and a depth of 6 feet for Route 2 along the south shore of Lake Okeechobee from Port Mayaca westward to Clewiston. Controlling depths are published in local Notice to Mariners.

(375) **Sounding datums.–**Depths charted in St. Lucie River from the Intracoastal Waterway to St. Lucie Lock are referred to mean low water. From St. Lucie Lock through St. Lucie Canal and Lake Okeechobee to Moore Haven Lock, depths are referred to a low water elevation which is 12.56 feet above mean sea level. From Moore Haven Lock through Caloosahatchee Canal to Ortona Lock, depths are referred to a low water elevation which is 10.06 feet above mean sea level. In the Caloosahatchee River,

the chart datum is mean lower low water. Actual available depths are shown on gages displayed at each lock.

(376) **Hurricane gates** are in the levee at Clewiston Industrial Canal, Miami Drainage Canal, Hillsboro Canal-North New River Drainage Canal, and West Palm Beach Drainage Canal. The hurricane gate at Clewiston is equipped with a lock that allows passage of small craft into Clewiston Industrial Canal. Pumping stations are at the hurricane gates at Miami Drainage Canal, Hillsboro Canal-North New River Drainage Canal, and West Palm Beach Drainage Canal. The gates are opened or closed only for pumping, and are not opened for boats. Depths of 10 feet may be taken over the sills. All gates have a width of 50 feet. These canals are not navigable and have filled with hyacinths and other obstructions.

(377) **Tides.**–The mean range of tide is 0.9 feet at the mouth of St. Lucie River. The diurnal range of tide is 1.2 feet at Fort Myers and 2.4 feet at Punta Rassa. At the eastern end of the waterway, tidal influence is perceptible to St. Lucie Lock (Mile 15.1) and at the western end, at low-water stage, is perceptible at Ortona Lock (Mile 93.5). Cross **currents** at the junction of St. Lucie River with the Intracoastal Waterway make the short turn at that point hazardous.

(378) **Weather, Okeechobee Waterway and vicinity**.–This route across the peninsula encounters a variety of climatic conditions. In general, temperatures over the inland portions are slightly cooler in winter, particularly the lows, and warmer in summer. The west coast also exhibits some of these continental tendencies, due mainly to the prevalence of easterly winds. For example, temperatures climb to 90°F (32.2°C) or above, on 106 days annually at Fort Myers, compared to 131 days at La Belle and 92 days near Stuart. Freezing temperatures are infrequent on the coast and occur on an average of 1 to 2 days inland. Summertime temperatures are tempered by the sea breeze along the east coast and by frequent afternoon showers and thunderstorms everywhere. Thunderstorms develop on about 80 to 100 days annually, and are most likely from June through September. They are generated by heating, fronts and tropical cyclones. Thunderstorms can bring heavy rain, strong gusty winds and hail. In severe cases tornadoes or waterspouts may develop. While dangerous, these are usually smaller and less damaging than the tornadoes of the mid-West.

(379) **Bridges.**–The minimum clearance under bridges across the Okeechobee Waterway is 49 feet at the lift bridge at **Mile 38.0.**

(380) General drawbridge regulations and opening signals for bridges over the Okeechobee Waterway and Taylor Creek are given in **117.1 through 117.49**, chapter 2. **Special drawbridge regulations** for certain bridges that supplement the general regulations are referenced with the area description of the waterway and the creek.

(381) The minimum clearance under overhead cables across the Okeechobee Waterway is 55 feet.

(382) **Government mooring facilities.**–There is a Government yacht basin with 4 slips available for overnight mooring of medium size boats at the Moore Haven Lock; similar facilities are available in the Government yacht basin below Ortona Lock. Government-owned tieup dolphins are located on the waterway immediately above and below each of the locks and immediately west of the entrance to Clewiston Industrial Canal.

(383) **Locks.**–Three of the five locks in the waterway have a length of 250 feet, width of 50 feet, and depth over the sill of 10 feet. The Port Mayaca Lock, **Mile 40.0,** has a length of 400 feet, width of 56 feet, and a depth of 16 feet. The W. P. Franklin Lock at Olga, **Mile 121.4,** has a length of 400 feet, width of 56 feet, and depth over the sills of 14 feet.

(384) General regulations governing bridges and locks and the handling of tows are given in **207.160,** chapter 2. The five navigation locks on the Okeechobee Waterway are operated from 0600 to 2130 daily; operating personnel are not on duty at other hours.

(385) Maintenance of the Okeechobee Waterway and operation of the locks are in charge of the Corps of Engineers area office at Clewiston. Before any attempt is made to pass through any portion of this route, the latest information regarding available depths, operations of the locks, and other existing conditions should be obtained from the office of the Corps of Engineers at Clewiston or at the Federal Building, 400 West Bay Street, Jacksonville. The telephone number of the Clewiston area office is 813-983-8101.

(386) Public address systems are installed at all the locks as an aid to navigation and a safety feature. Craft approaching any of the locks should approach for passage only upon receiving instructions from the lock tender through the loudspeaker system or by standard light signal. The locks monitor VHF-FM channel 16.

(387) **Caution.**–The St. Lucie, Port Mayaca, Moore Haven, Ortona, and W.P. Franklin Locks are used, when conditions require, for discharging water from Lake Okeechobee. All vessels approaching these locks during periods of discharge should exercise caution. The depth over the upper sill of St. Lucie Lock is reduced from 13.5 feet to 8 feet when water is being discharged from Lake Okeechobee.

(388) **St. Lucie Inlet** and **St. Lucie River** to Stuart, **Mile 7.5**, are discussed in chapter 10. **South Fork** of St. Lucie River begins at **Mile 7.7** and trends southward into St. Lucie Canal.

(389) **Palm City, Mile 9.5,** is a small town on the west bank of South Fork. A small boatyard for hull, engine, and electronic repairs on the east bank of the river, just south of the Palm City Bridge, has a marine railway that can haul out boats to 50 feet. Gasoline, water, ice, electricity, wet covered storage, and marine supplies are available. In May 1983, a reported controlling depth 5½ feet could be carried from the waterway to the yard and alongside. The fixed highway bridge over the waterway here has a clearance of 54 feet. The overhead power cable just north of the bridge has a clearance of 55 feet. During periods of high water in Lake Okeechobee, shoaling may occur in the vicinity of the bridge.

(390) At **Mile 10.1,** Okeechobee Waterway enters St. Lucie Canal from South Fork, which then continues southeastward. South Fork above the junction is deep and winding, affording good protection for small boats during hurricane weather. About 2 miles up this fork is a fixed highway bridge with a clearance of 4 feet. Current was observed to be flowing up the river at this bridge.

(391) **Heights**.–Overhead clearances on the St. Lucie Canal from St. Lucie Lock to Port Mayaca Lock are referred to a St. Lucie Canal stage of 14.5 feet.

(392) At **Mile 13.6,** a boatyard specializing in new construction and renovations is east of the waterway. A 60-ton mobile lift is available for hull, engine, and electronic repairs. In May 1983, depths of 6½ feet were reported alongside.

(393) St. Lucie Canal is crossed at **Mile 14.0** by the I-95 twin fixed highway bridges with clearances of 56 feet, at **Mile 14.2** by an overhead power cable with an authorized clearance of 95 feet, and at **Mile 14.5** by the Thomas B. Manual (Florida Turnpike) Bridge, which has a fixed span with a clearance of 55 feet.

(394) The **St. Lucie Lock, Mile 15.1,** has a width of 50 feet, length of 250 feet, and a depth of 12 feet over the sill. High water in Lake Okeechobee may cause the lock to be closed to navigation for parts of the day. Caution should be used when approaching the lock when it is being used to discharge water from Lake Okeechobee. Limited tieup facilities are available at the lock.

(395) Overhead power and telephone cables crossing St. Lucie Canal at **Mile 17.1** have clearances of 56 feet. State Route 76A fixed highway bridge crossing the canal at **Mile 17.1** has a clearance of 56 feet.

(396) An overhead power cable at **Mile 20.2** has a clearance of 82 feet.

(397) At **Mile 23.7,** overhead power and telephone cables crossing the waterway have a least clearance of 58 feet.

(398) At **Mile 25.4,** overhead power cables with a least clearance of 63 feet cross the waterway; another overhead power cable with a clearance of 76 feet crosses at **Mile 26.9.**

(399) Near **Indian Town,** State Route 710 highway bridge at **Mile 28.1,** has a fixed span with a clearance of 55 feet. The hand-operated swing span of the Seaboard System Railroad (SCL) bridge at **Mile 28.5** has a channel width of 47 feet and a clearance of 7 feet. (See **117.1 through 117.59 and 117.317**, chapter 2, for drawbridge regulations.) An overhead telephone cable at the bridge has a clearance of 59 feet, and overhead power and telephone cables 0.4 mile west of the bridge have a clearance of 75 feet.

(400) At **Mile 29.5,** there is a marina on the north side of the canal with 33 slips where craft up to 120 feet can be accommodated. Gasoline, diesel fuel, water, ice, electricity, some marine supplies, and a snack bar are available. There is a surfaced launching ramp, a 30-ton marine lift, and a mechanic on call for minor engine repairs. Provisions, supplies, restaurants, and motels are available close by. In May 1983, the reported controlling depth in the entrance and in the basin was 8 feet.

(401) Several overhead power cables between **Mile 33.0** and Port Mayaca Lock have a least clearance of 56 feet.

(402) **Port Mayaca, Mile 38.0,** has no piers, but one wall of the lock is still present and can be used to tie up. Some supplies are available in the community. The South Central Florida Express Railroad bridge across the waterway here has a lift span with clearances of 7 feet down and 49 feet up. (See **117.1 through 117.59 and 117.317**, chapter 2, for drawbridge regulations.)

(403) U.S. Routes 98–441 highway bridge at **Mile 38.8** has a fixed span with a clearance of 55 feet.

(404) **Port Mayaca Lock,** about 300 yards west-southwest of the U.S. Routes 98-441 highway bridge, has a length of 400 feet, width of 56 feet, and a depth of 16 feet over the sill.

(405) The waterway enters **Lake Okeechobee** at **Mile 38.9.** The lake is an approximately circular fresh-water lake in southern Florida, about 26 miles from the Atlantic coast, 50 miles from the Gulf coast, and 90 miles from the south end of the mainland. It varies in width from 22 to 30 miles and is shoal along its west and southwest sides with depths of 10 to 14 feet in the center. The shoal areas are generally filled with a thick growth of watergrass, which makes it necessary to equip boats with weedless propellers if operating in the lake for any length of time.

(406) **Taylor Creek** empties into Lake Okeechobee at its northernmost extremity. A lock at the mouth of the creek is 60 feet long and 50 feet wide, and has a depth of 5.5 feet over the sill. (See **207.170d**, chapter 2, for regulations.) About 3.5 miles above the mouth of the creek is the town of **Okeechobee,** which has rail and highway connections. A dredged channel leads from the lake to the highway bridge at Okeechobee. In May 1983, the reported controlling depth was 5 feet to the highway bridge. The approach channel from the lake to the mouth of Taylor Creek is marked by a light and daybeacons; the remainder of the channel to Okeechobee is unmarked. There are two fishing camps in the creek just above the mouth where gasoline, water, ice, launching ramps, and some marine supplies are available.

(407) U.S. Route 441 highway bridge about 0.2 mile above the mouth of Taylor Creek has a 40-foot bascule span with a clearance of 9 feet. (See **117.1 through 117.59 and 117.335**, chapter 2, for drawbridge regulations.) Overhead power cables north and south of the bridge have a minimum clearance of 40 feet. State Route 70 highway bridge crossing the creek of Okeechobee has a 40-foot swing span with a clearance of 3 feet.

(408) **Kissimmee River** flows into the north side of Lake Okeechobee about 5.3 miles southwest of Taylor Creek. State Route 78 highway bridge about 0.5 mile above the river entrance has a removable span with a channel width of 36 feet when open and a clearance of 20 feet. (See **117.1 through 117.49**, chapter 2, for drawbridge regulations.) The overhead power cable at the bridge has a clearance of 71 feet. In September 1986, the centerline controlling depth was 4 feet in the entrance channel, then 8 feet for another 5 miles. There are two fish camps and a small marina at a recreation area on the north bank of the river just above the bridge. Berths, gasoline, water, and ice are available.

(409) **North Lake Shoal** extends 4 miles off the northwest shore of the lake. **Observation Shoal** is an extensive sand shoal extending as much as 7 miles off the southwest shore of the lake. **Rocky Reef** extends across the south end of the bay between **Observation Island** and **Bacom Point;** depths of 2 to 7 feet are over it in places. The channel of Route 1 through the reef is marked by lights and daybeacons. **Halifax Bank** is a sand shoal toward the south end of **South Bay.**

(410) Shelter may be found in Taylor Creek at the north end of the lake, in **Pelican Bay** at the southeast corner of the lake, and in the canals. Where depths are sufficient in the watergrass off the west and southwest sides of the lake, anchorage in moderate weather can be made, as the holding bottom is good and protection is afforded by the watergrass.

(411) **Route 1** across Lake Okeechobee from Port Mayaca follows a southwesterly course to Rocky Reef, thence a southerly course in the channel through the reef which is marked by lights and daybeacons, and then turns westward and thence southwestward and joins Route 2 at Clewiston.

(412) **Clewiston,** at **Mile 65.0** via Route 1 and **Mile 75.7** via Route 2, is an agricultural community on the southwest side of the lake. It is on a branch of the Seaboard System Railroad. There are several hotels, motels, restaurants, and a shopping district in the city. The area offices and general headquarters of the Corps of Engineers are on the east side of the canal at the east side of town. Gasoline, diesel fuel, some marine supplies, and provisions can be obtained along the west side of the canal; engine repairs can be made. Dock space is available along the bulkhead of the Clewiston Industrial Canal south of the levee. In November 2000, 3 feet was reported alongside. An overhead power cable that has a clearance of 37 feet crosses the canal about 400 yards south of the hurricane gate.

(413) Routes 1 and 2 combine into one route at Clewiston.

(414) **Route 2** leaves St. Lucie Canal at **Mile 38.9** and follows the southern perimeter of the lake. It is marked by daybeacons

and is the route most used. It is recommended during periods of rough water and high winds in Lake Okeechobee. Levees are along the southern bank of this route.

(415) **Canal Point** is at **Mile 47.4** on Route 2. **West Palm Beach Drainage Canal** joins the lake here; at the lock in the canal an overhead power cable has a clearance of 80 feet.

(416) **Pahokee, Mile 50.6,** is a town on the southeast side of the lake with a protected boat basin which had a reported alongside depth of 7 feet in December 2001. Gasoline, diesel fuel, electricity, water, ice, and a launching ramp are available.

(417) The only bridge crossing Route 2 is at **Mile 60.7.** State Route 717 highway bridge, connecting the mainland at **Belle Glade** with **Torry Island** and **Kreamer Island,** has a swing span with a clearance of 11 feet. The channel is through the west draw. (See **117.1 through 117.59 and 117.317**, chapter 2, for drawbridge regulations.) An overhead power cable at the bridge has a clearance of 75 feet. Gasoline, water, ice, electricity, diesel fuel by truck, and launching ramps are available at boat landings on both sides of the bridge. South of the bridge, on Torry Island, there is a wharf maintained by the city with depths of 4 feet alongside; there are three surfaced launching ramps and a public picnic area.

(418) About 0.3 mile below the bridge at **Mile 61.0** the **Hillsboro Drainage Canal** and **North New River Drainage Canal** join the lake.

(419) The **Miami Drainage Canal** joins the lake at **Lake Harbor, Mile 67.2.**

(420) Route 2 continues northwestward to Clewiston where it joins Route 1 and combines into one route westward. Mileage westward of Clewiston is based on use of Route 1.

(421) **Moore Haven Lock, Mile 78.0,** has a width of 50 feet, a length of 250 feet, and a least depth of 10 feet over the sills. Two standby areas have been established for vessels waiting to pass through. The first area is about 275 yards northwest of the lock at the junction of the canals, and the second area is 150 yards southwest of it. During periods of discharge through the lock, the currents and turbulence are extremely hazardous to all craft. Under no circumstances shall any craft approach nearer to the lock than the standby areas until discharge has been stopped and the water pool stabilized.

(422) A public address system at the Moore Haven Lock is an aid to navigation and safety feature. Craft coming to the lock should approach the passage only upon receiving instructions from the locktender through the loudspeaker system, and enter the lock chamber only after signal from him.

(423) Freshwater is available at the lock. A Government boat basin with four slips for medium-sized boats is just west of the lock. In May 1983, there were reported depths of 10 to 30 feet in the basin.

(424) The waterway between Moore Haven Lock and Ortona Lock passes through **Caloosahatchee Canal.**

(425) The Seaboard System Railroad (SCL) bridge, at **Mile 78.3,** has a hand-operated swing span with a clearance of 5 feet; the channel is through the east draw. (See **117.1 through 117.59 and 117.317**, chapter 2, for drawbridge regulations.) The span required about 15 minutes for opening and westbound vessels should signal for opening the bridge while still in Moore Haven Lock. An overhead power cable about 150 yards south of the bridge has a clearance of 75 feet. At **Mile 78.4** U.S. Route 27 twin highway bridges have fixed spans with a clearance of 55 feet.

(426) There is a small-boat basin on the west side of the canal between the railroad and highway bridges. Gasoline, diesel fuel by truck, water, ice, electricity, launching ramp, wet covered storage for 35 boats 20 feet long and some marine supplies are available. A forklift that can haul out craft to 26 feet is available for hull and engine repairs. A depth of 4 feet can be carried from the waterway to the basin. An overhead cable with a clearance of 18 feet crosses the entrance to the basin. Provisions can be obtained in the town of **Moore Haven** at **Mile 78.5,** on the west bank of Caloosahatchee Canal about 0.5 mile south of the lock. There are hotels, motels, and restaurants; some supplies can be obtained. Bus service is available. The town dock is on the west side of the canal just south of the highway bridge; water and electricity are available on the dock, and a small fee is charged for dockage. In November 2000, a depth of 6 feet was reported alongside the dock.

(427) At **Mile 82.1,** the canal passes through shallow, freshwater **Lake Hicpochee,** about 5 miles long and 2.5 miles wide, soft mud bottom. Most of the surface is covered with hyacinth and saw grass. Spoil banks on both sides of the canal are overgrown to a height of about 12 feet and have only a few open spots where the lake can be seen.

(428) At **Citrus Center, Mile 88.8,** a marina on the south side of the waterway has berths with electricity, water, ice, gasoline, and diesel fuel.

(429) At **Mile 90.0,** an overhead power cable with a clearance of 75 feet crosses the canal.

(430) **Ortona Lock, Mile 93.5,** has a width of 50 feet, a length of 250 feet, and a depth of 11 feet over the sills. During periods of heavy discharge through the spillway with the lock gates closed, the currents sweep toward the spillway. Navigators approaching the lock should exercise extreme caution and maintain maximum possible control at all times. A ramp and a 180-foot wharf are about 500 yards west of the lock on the north bank.

(431) The waterway enters **Caloosahatchee River** through a land cut west of Ortona Lock. Normal current in the river and canal is about 1.5 knots; however, velocities are increased considerably during freshets.

(432) A list of hurricane havens, "Safe Harbors in Caloosahatchee River During Hurricanes," is available from Lee County Division of Marine Sciences, 3410 Palm Beach Blvd., Fort Myers, FL 33916; telephone: 813-338-3375.

(433) Overhead power and telephone cables about 0.2 mile westward of Ortona Lock have a clearance of 76 feet.

(434) **LaBelle, Mile 102.9,** has a pier and turning basin. In May 1983, a depth of 4½ feet was reported alongside the pier. State Route 29 highway bridge crossing here, has a bascule span with a clearance of 28 feet at the center. (See **117.1 through 117.59 and 117.317**, chapter 2, for drawbridge regulations.) The overhead power and television cables at the bridge have a least clearance of 60 feet.

(435) At **Denaud, Mile 108.2,** a highway bridge has a swing span with a clearance of 9 feet. An overhead power cable west of the bridge has a clearance of 79 feet. (See **117.1 through 117.59 and 117.317**, chapter 2, for drawbridge regulations.)

(436) **Alva,** on the north bank at **Mile 116.0,** has a small pier where gasoline, water, and some marine supplies can be obtained. State Route 873 highway bridge crossing the waterway here, has a bascule span with a clearance of 23 feet. (See **117.1 through 117.59 and 117.317**, chapter 2, for drawbridge

regulations.) The overhead power cable at the bridge has a clearance of 77 feet.

(437) **W. P. Franklin Lock, Mile 121.4,** has a length of 400 feet, width of 56 feet, and a depth of 14 feet over the sill. A government operated recreation area with a launching ramp, water, and picnic tables is on the north side of the waterway adjacent to the lock.

(438) At **Mile 124.0,** just below **Olga,** there is a small marina where gasoline, diesel fuel, water, ice, berths with electricity, some marine supplies, a 10-ton portable lift, and hull and engine repairs are available. A depth of 6 feet was reported alongside the 175-foot wharf on the waterway in May 1983.

(439) At **Mile 125.6, Trout Creek** enters the waterway. **Owl Creek** branches from Trout Creek about 0.7 mile above the entrance. There are two entrances from the waterway into Trout Creek. The controlling depth, in 1963, was 5 feet in the western entrance and 7 feet in the eastern entrance. At Owl Creek there is a small-craft facility where berths, electricity, gasoline, diesel fuel, water, storage, and a 60-ton mobile lift are available; hull and engine repairs can be made. Small craft can be put in freshwater storage behind a dam here.

(440) A highway bridge crossing the river at **Mile 126.2** has a bascule span with a clearance of 27 feet at the center. (See **117.1 through 117.59 and 117.317**, chapter 2, for drawbridge regulations.) A marina close west of the bridge provides gasoline, diesel fuel, water, ice, marine supplies, a 4-ton lift, and hull and engine repairs.

(441) At **Mile 128.0,** four overhead power cables have a minimum clearance of 80 feet. The twin fixed highway bridges at **Mile 128.9** have a least clearance of 55 feet.

(442) **Orange River** enters the waterway at **Mile 128.9.** In May 1985, the reported midchannel controlling depth was 2 feet to a boatyard and a marina about 0.5 mile and 0.6 mile, respectively, above the mouth. The channel is marked by private daybeacons. Reported depths alongside were 10 feet at the boatyard and 8 feet at the marina. Berths, electricity, gasoline, diesel fuel, water, ice, marine supplies, storage, and launching ramps are available; hull and engine repairs can be made. A 60-foot marine railway is at the boatyard, and a 10-ton fixed lift is at the marina.

(443) Orange River is a hurricane refuge for small yachts. The river is crossed by State Route 80 highway bridge 0.8 mile above the mouth. It has a fixed span with a clearance of 13 feet. Adjacent to the bridge are overhead power cables with a minimum clearance of 38 feet. From the bridge to 2 miles above the mouth, other overhead cables have a minimum clearance of 36 feet.

(444) **Manatees.**–Regulated speed zones for the protection of manatees are in the Caloosahatchee River from San Carlos Bay to the Edison Memorial Bridge (U.S. 41) and in Orange River and at its confluence with Caloosahatchee River about 5 miles above Edison Memorial Bridge. (See Manatees, chapter 3.)

(445) The Caloosahatchee River is crossed at **Mile 129.9** by a Seaboard System Railroad (SCL) bridge which has a bascule span with a clearance of 5 feet. In the open position, the draw overhangs the channel above a height of 55 feet.

(446) **Edison Memorial Bridge** (U.S. Business Route 41), has two fixed spans which cross the Caloosahatchee River at **Fort Myers, Mile 134.5**, with a clearance of 56 feet.

(447) **Caloosahatchee Bridge** (U.S. Route 41), which crosses the Caloosahatchee River about 0.5 mile SW of the Edison Memorial Bridge has a fixed span with a clearance of 55 feet at the main channel.

(448) **Chart 11472.**–South of St. Lucie Inlet, the Intracoastal Waterway enters **Great Pocket** at **Mile 988.3,** proceeds to a canal at **Mile 990.1,** and continues through **Peck Lake** and **South Jupiter Narrows** to **Hobe Sound.**

(449) **Manatees.**–A regulated speed zone for the protection of manatees is in those waters of the Indian River other than the Intracoastal Waterway from St. Lucie Inlet to Jupiter Inlet. (See Manatees, chapter 3.)

(450) State Route 708 highway bridge (locally known as Hobe Sound bridge) at **Mile 995.9** has a bascule span with a clearance of 21 feet.

(451) **Hobe Sound National Wildlife Refuge** comprises the shore areas west of the waterway from **Mile 996.8** to **Mile 999.7.**

(452) The waterway continues in Hobe Sound to **Conch Bar, Mile 1001.3,** and thence through **Jupiter Sound** to Jupiter Inlet. At **Mile 1004.1,** near the southern end of Jupiter Sound, State Route 707 highway bridge crossing the waterway has a bascule span with a clearance of 25 feet. There are numerous small-craft facilities on both sides of the waterway in Jupiter Sound. (See the small-craft facilities tabulation on chart 11472 for services and supplies available.)

(453) Jupiter Inlet is discussed in chapter 10.

(454) The waterway continues into **Loxahatchee River** at **Mile 1004.5.** U.S. Route 1 highway bridge (locally known as Federal Highway bridge) across the waterway at **Mile 1004.8** has a bascule span with a clearance of 26 feet at the center. The bridgetender monitors VHF-FM channel 16; call sign WHW-793. Piers of a former bridge extend from shore on both sides of the channel just west of the bridge. About 0.3 mile westward of the bridge, the waterway makes a sharp turn just eastward of two other bridges, crosses Loxahatchee River, and enters Lake Worth Creek.

(455) Care must be taken not to confuse the route of the waterway with the passage through the two bridges just westward of the sharp turn across the Loxahatchee River at **Mile 1005.1.** Alternate State Route A1A highway bridge crossing the river has a 47-foot fixed span with a clearance of 25 feet. The Florida East Coast railroad bridge has a 40-foot bascule span with a clearance of 4 feet. (See **117.300**, chapter 2, for drawbridge regulations.) The river shoals beyond these bridges. A fixed highway bridge with a 34-foot removal span and a clearance of 11 feet crosses the north fork of the river about 2 miles above the railroad bridge. An overhead power cable north of the bridge has a clearance of 38 feet.

(456) A marina with excellent facilities is immediately east of the U.S. Route 1 bridge on the south side of the river at **Jupiter.** Berths with gasoline, diesel fuel, electricity, water, ice, and complete marine supplies are available. In January 2000, 8 feet was reported in the approach and alongside. A smaller marina about 0.5 mile to the east has a lift to 2.5 tons for hull and engine repairs. In January 2000, 4 feet was reported in the approach and alongside.

(457) State Route 706 highway bridge (locally known as Indiantown Road bridge) at **Mile 1006.2** has a bascule span with a clearance of 35 feet at the center. The bridgetender monitors VHF-FM channel 16; call sign WHW-789. (See **117.1 through 117.59 and 117.261**, chapter 2, for drawbridge regulations.)

(458) At **Mile 1007.1,** an overhead power cable has a clearance of 83 feet across the waterway. The Donald Ross Road bridge crossing the waterway at **Mile 1009.3** has a bascule span with a clearance of 35 feet. (See **117.1 through 117.59 and 117.261,** chapter 2, for drawbridge regulations.)

(459) A small boatyard on the west bank of the waterway at **Mile 1011.7** has a marine railway that can haul out vessels up to 55 feet for hull and engine repairs. A 3-ton mobile hoist, gasoline in cans, diesel fuel by truck, and water are available.

(460) State Route 74 (PGA Boulevard) highway bridge at **Mile 1012.6** has a bascule span with a clearance of 24 feet at the center. (See **117.1 through 117.59 and 117.261**, chapter 2, for drawbridge regulations.)

(461) At **Mile 1013.7**, the waterway is crossed by U.S. Route 1 highway bridge (locally known as Parker Bridge). It has a twin bascule span having a clearance of 25 feet at the center. (See **117.1 through 117.59 and 117.261**, chapter 2, for drawbridge regulations.) The overhead power cable on the east side of the bridge has a clearance of 85 feet.

(462) Just southeastward of the bridge is a yacht basin with 100 open berths for boats up to 100 feet long; water, electricity, and telephone connections are at each berth. Depths are reported to be 10 feet. Gasoline, diesel fuel, ice, restaurants, a motel, and recreation facilities are available. Engine and electronic repairs can be made.

(463) The Intracoastal Waterway enters **Lake Worth** at **Mile 1014.1** and traverses the lake from one end to the other. The lake is a long, narrow, and shallow body of water separated from the ocean by an island varying in width from 0.1 to 0.5 mile. Considerable dredging has been done in Lake Worth for private channels and for real estate development. Local knowledge is necessary to carry the best water outside the limits of the marked channels.

(464) There are many excellent and complete marinas and repair yards for yachts along the shores of Lake Worth.

(465) **Little Lake Worth,** at the north end of Lake Worth, has a basin which in 1969, has depths of 12 to 14 feet. State Route A1A highway bridge across the entrance has a 27-foot fixed span with a clearance of 8 feet. A privately marked and dredged channel leads northward to Little Lake Worth from the Intracoastal Waterway at **Mile 1014.2.** In 1975-February 2000, the reported controlling depth was 7 feet. In June 1987, shoaling to an unknown depth was reported just north of Light 9 and Light 10.

(466) State Route A1A fixed highway bridge (Jerry Thomas Memorial Bridge), crossing the waterway at **Mile 1017.2** and connecting **Riviera Beach** and **Singer Island,** has a clearance of 65 feet.

(467) There are a number of marinas, fuel piers, and repair facilities on both sides of Lake Worth between the bridge and the Port of Palm Beach. (See the small-craft facilities tabulation on chart 11472 for services and supplies available.)

(468) **Lake Worth Inlet, Mile 1018.4,** and the ship channel leading to the basin at the **Port of Palm Beach,** are described in chapter 10.

(469) Anchorage for yachts drawing up to 14 feet is available in the buoyed channel on the east side of Lake Worth leading southward from Port of Palm Beach main ship channel; the best area is immediately south of the ship channel.

(470) **Manatees.**–A regulated speed zone for the protection of manatees is in the vicinity of the powerplant discharge at Riviera Beach at **Mile 1018.5.** (See Manatees, chapter 3.)

(471) On the west side of the lake at **Mile 1019.8**, there is a boat yard and marina. The marina can accommodate vessels to 220 feet with drafts to 12 feet. Electricity, diesel fuel, gasoline, ice, and provisions are available. Major repairs can be made; mobile lifts to 300 tons, fixed lift to 125 tons. Stores, motels, and the Palm Beach International Airport are nearby.

(472) **West Palm Beach, Mile 1021.9,** on the west shore of Lake Worth, is a resort city which is also of considerable commercial importance. The city has complete supplies and services for yachts.

(473) The long pier of a marina is at **Mile 1021.6** in West Palm Beach, about 0.1 mile north of the highway bridge. Palm Beach Yacht Club is at the marina. There are open berths for about 44 boats of up to 120 feet. Gasoline, diesel fuel, water, ice, electricity, and a restaurant are available. In 1998, approach and alongside depths of 8 feet were reported.

(474) The yacht club pier is also near the Good Samaritan Hospital; medical aid to boatmen is available at the hospital.

(475) **Flagler Memorial Bridge** (State Route A1A), **Mile 1021.8** has a bascule span with a clearance of 17 feet at the center. The bridgetender monitors VHF-FM channel 16, call sign WHW-785. (See **117.1 through 117.59 and 117.261**, chapter 2, for drawbridge regulations.)

(476) About 0.1 mile south of the bridge, a privately maintained and marked channel leads westward to a marina. There is adequate berthing space for 187 boats; gasoline, diesel fuel, water, electricity, and ice are available; restaurants, motels, hotels, provisions, and marine supplies are close by.

(477) **Royal Palm (Royal Park)** bridge (State Route 704), **Mile 1022.6,** has a bascule span with a clearance of 14 feet at the center. The bridgetender monitors VHF-FM channel 16, call sign WHW-681. (See **117.1 through 117.59 and 117.261**, chapter 2, for drawbridge regulations.) In July 1999, a temporary bridge, with a design clearance of 14 feet in the center of the waterway, was under construction just south of Royal Palm Bridge. Mariners are advised that waterway restrictions, authorized by the Marine Safety Office, Miami, are being enforced during the construction. Announcement of these restrictions are broadcast on VHF-FM channel 9.

(478) **Chart 11467.**–From West Palm Beach, the waterway continues southward to the south end of Lake Worth at **Mile 1034.3,** thence through a cut to Lake Wyman at **Mile 1045.7.**

(479) Southern Boulevard Bridge (State Route 80), **Mile 1024.7,** has a bascule span with clearance of 14 feet at the center. The bridgetender monitors VHF-FM channel 16, call sign WHW-777. (See **117.1 through 117.59 and 117.261**, chapter 2, for drawbridge regulations.)

(480) **West Palm Beach Canal** enters the waterway at **Mile 1026.8**. A fixed highway bridge with a clearance of 12 feet is about 0.3 mile above the mouth. In 1983, the reported controlling depth in the canal was 7 feet.

(481) At **Lake Worth, Mile 1028.8,** State Route 802 highway bridge (locally known as Lake Worth Avenue bridge) crossing the waterway has a bascule span with a clearance of 38 feet at the center and 35 feet elsewhere. The bridgetender monitors VHF-FM channel 16 and works channel 13.

(482) Three repair yards are in the yacht basin on the west side of the lake at **Mile 1030.6.** The largest yard has a 150-ton fixed lift, and a marine railway that can handle craft up to 115 feet; hull, engine, and electronic repairs can be made. Berths with electricity, gasoline, diesel fuel, water, ice, and marine supplies are available. In May 1983, reported depths of 9 feet were available from the waterway to the basin.

(483) At **Lantana, Mile 1031.0,** Lantana Avenue bridge crossing the waterway has a bascule span with a clearance of 13 feet at the center. (See **117.1 through 117.59 and 117.261**, chapter 2,

for drawbridge regulations.) The bridgetender monitors VHF-FM 16 and works channel 13. There are small-craft facilities at **Miles 1032.6** and **1033.1.** Berths with electricity, gasoline, diesel fuel, water, ice, and marine supplies are available. Mobile lifts to 60 tons are available for hull, engine, and electronic repairs.

(484) At **Boynton Inlet, Mile 1033.7,** easterly winds cause currents that have great velocity and must be reckoned with when navigating the Intracoastal Waterway. The inlet is discussed in chapter 10.

(485) The waterway enters a cut at **Mile 1034.3.** East Ocean Avenue/State Route 804 highway bridge crossing the waterway at **Boynton Beach, Mile 1035.0,** has a bascule span with a clearance of 21 feet. The bridgetender monitors VHF-FM channel 16 and works channel 13; call sign WHW-773.

(486) Just north of the bridge on the western shore of the lake there are three small-craft facilities where berths with electricity, gasoline, diesel fuel, water, ice, and marine supplies are available. A 20-ton lift that can haul out vessels for hull, engine, and electronic repairs is available.

(487) At **Mile 1035.8,** Woolbright Road highway bridge with a bascule span and clearance of 25 feet crosses the waterway. The bridgetender monitors VHF-FM channel 16 and works channel 13.

(488) The Eighth Street highway bridge over the waterway at **Mile 1038.7** has a bascule span with a clearance of 9 feet at the center. (See **117.1 through 117.59 and 117.261**, chapter 2, for drawbridge regulations.) The bridgetender monitors VHF-FM channel 16 and works channel 13.

(489) Just south of the bridge on the west side of the waterway there is a boatyard that makes hull, engine, and electronic repairs. The yard has berthage with electricity, gasoline, diesel fuel, and water.

(490) At **Delray Beach, Mile 1039.6,** the Atlantic Avenue (State Route 806) highway bridge has a bascule span with a clearance of 12 feet at the center. The bridgetender monitors VHF-FM channel 16 and works channel 13; call sign WHW-769. (See **117.1 through 117.59 and 117.261**, chapter 2, for drawbridge regulations.) A marina on the west side of the waterway about 1 mile south of the bridge at **Mile 1040.6** has berthage with electricity, gasoline, diesel fuel, water, ice, and some marine supplies.

(491) Linton Boulevard (12th Street) bascule bridge with a clearance of 30 feet at the center crosses the waterway at **Mile 1041.0.**

(492) Spanish River Road bascule bridge with a clearance of 21 feet (25 feet at the center) crosses the waterway at **Mile 1044.9**. The bridgetender monitors VHF-FM channels 13 and 16.

(493) At **Mile 1045.7,** the waterway enters **Lake Wyman,** crosses the lake through a dredged channel, marked by lights and daybeacons, and then continues southward to Lake Boca Raton and Boca Raton Inlet.

(494) State Route 798 (Palmetto Park Road) highway bridge at **Boca Raton Mile 1047.5,** has a bascule span with a clearance of 19 feet at the center. Just south of the west side, is a surfaced launching ramp. The waterway enters **Lake Boca Raton at Mile 1047.7**. **Boca Raton Inlet** leads from the lake to the Atlantic Ocean. The inlet is described in chapter 10 (note the dangers).

(495) The waterway leaves Lake Boca Raton at **Mile 1048.1** and enters a long land cut. Crossing the north end of the land cut at **Mile 1048.2,** Camino Real highway bridge has a bascule span with a clearance of 9 feet at the center. (See **117.1 through 117.59 and 117.261 (aa-1),** chapter 2, for drawbridge regulations.) Care should be exercised at this bridge as strong currents may be encountered; the sides of the canal are rocky.

(496) **Hillsboro Drainage Canal** enters the Intracoastal Waterway from the west at **Mile 1049.9** near **Deerfield Beach**. The confluence of the canal and the waterway on the north side of the bridge creates a dangerous condition in the channel. During periods of maximum discharge through the canal, hazardous currents develop in the Intracoastal Waterway channel about 100 yards north of Deerfield Beach Bridge.

(497) Vessels proceeding southward should not approach the bridge until it is fully opened for passage, and should at all times maintain sufficient headway to avoid being carried toward the east fender system by the flow of water from Hillsboro Drainage Canal that generates considerable cross current, especially during periods of flood.

(498) About 0.8 mile up Hillsboro Drainage Canal, U.S. Highway 1 bridge has a 40-foot fixed span with a clearance of 14 feet. Just below the bridge is a marina and repair yard. Half of the finger piers are covered. In August 2001, an approach depth of 8 feet and an alongside depth of 6 feet were reported. A launching ramp, water, and ice are available. A 15-ton lift is available for hull, engine, and electronic repairs.

(499) Just below the canal, at **Mile 1050.0,** the Intracoastal Waterway is crossed at Deerfield Beach by State Route 810 highway bridge that has a bascule span with a clearance of 21 feet at the center. The bridgetender monitors VHF-FM channel 16 and works on channel 13. (See **117.1 through 117.59 and 117.261**, chapter 2, for drawbridge regulations.)

(500) Just south of the bridge on the west side of the waterway is a marina with berthage for 40 boats with 6 feet reported alongside. In August 2001, the reported approach depth was 8 feet from the waterway into the basin. Gasoline, diesel fuel, water, ice, and electricity are available.

(501) **Hillsboro Inlet** at **Mile 1053.9,** is described in chapter 10. Between Hillsboro Inlet and **Pompano Beach,** including **Lake Placid**, there are several marinas and repair facilities. (See the small-craft facilities tabulation on chart 11467 for services and supplies available.)

(502) At **Mile 1055.0,** Northeast 14th Street bridge has a double-leaf bascule span with a clearance of 15 feet. The bridgetender monitors VHF-FM channel 16 and works on channel 13. (See **117.1 through 117.59 and 117.261**, chapter 2, for drawbridge regulations.)

(503) Near **Pompano Beach, Mile 1056.0,** there is the Atlantic Boulevard/State Route 814 highway bridge with a bascule span with a clearance of 15 feet at the center. The bridgetender monitors VHF-FM channel 16 and works on channel 13. (See **117.1 through 117.59 and 117.261**, chapter 2, for drawbridge regulations.)

(504) Just north of the bridge, on the east side of the waterway, a yacht basin has finger piers with depths that vary from 10 feet near the waterway to 7 feet at the inner end of the basin; the piers have water and electricity. Gasoline, diesel fuel, ice, and some supplies are available, and there is berthage for 83 boats.

(505) **Lake Santa Barbara,** on the west side of the waterway at **Mile 1056.8,** has several marinas and boatyards. Berths with electricity, gasoline, diesel fuel, water, and ice are available. A 20-ton lift is available for hull, engine, and electronic repairs.

(506) At **Mile 1059.0,** Commercial Boulevard bridge over the waterway near **Lauderdale-by-the-Sea** has a bascule span with a clearance of 15 feet. The bridgetender monitors VHF-FM channel 16 and works on channel 13. (See **117.1 through 117.59 and 117.261**, chapter 2, for drawbridge regulations.)

(507) At **Mile 1060.5,** the Oakland Park Beach Boulevard highway bridge over the waterway near **Oakland Park** has a bascule span with a clearance of 22 feet at the center. The bridgetender monitors VHF-FM channel 16 and works on channel 13. (See **117.1 through 117.59 and 117.261**, chapter 2, for drawbridge regulations.)

(508) At **Mile 1062.6,** the two Sunrise Boulevard (State Route 838) highway bridges, at Fort Lauderdale, have bascule spans with a minimum clearance of 25 feet at the center. The bridgetender monitors VHF-FM channel 16 and works on channel 13. (See **117.1 through 117.59 and 117.261,** chapter 2, for drawbridge regulations.)

(509) **Middle River** enters the waterway from westward about 0.6 mile south of the Sunrise Boulevard bascule bridges; the reported controlling depths, in June 1975, were 6 feet to the Sunrise Boulevard highway bridge 0.9 mile above the mouth, thence 5 feet to the U.S. Route 1 bridge 2.2 miles above the mouth. The Sunrise Boulevard highway bridge about 0.9 mile above the mouth, reportedly has a 29-foot fixed span with a clearance of 5 feet. About 1 mile north of the bridge is an overhead power cable with a clearance of 38 feet. U.S. Route 1 highway bridge has a 29-foot fixed span with a clearance of 8 feet.

(510) An overhead power cable with a clearance of 46 feet crosses the river just eastward of U.S. Route 1 highway bridge.

(511) Middle River divides into North Fork and South Fork just westward of U.S. Route 1 highway bridge. North Fork is crossed by a 27-foot fixed span with a clearance of 4½ feet about 2.2 miles above the mouth of Middle River.

(512) **Speed** in Middle River is limited to no wake from a point 1 mile above the Sunrise Boulevard Highway Bridge.

(513) **Fort Lauderdale, Mile 1065.0,** a large and colorful city known as the "Venice of America," is served by the Florida East Coast Railway and the Seaboard System Railroad. Navigable waters include the myriad of manmade canals in addition to the natural waterways. The canals between the manmade islands are used by the riparian owners and their guests.

(514) All facilities for yachts are available at Fort Lauderdale, and several thousand yachts base here in the winter. (See the small-craft facilities tabulation on chart 11467 for services and supplies available.) There are many bathing and recreation facilities, hotels, restaurants, and shopping centers in the city. A monument marks the original site of Fort Lauderdale, built in 1838 during the Seminole War.

(515) At **Mile 1064.0,** Las Olas Boulevard highway bridge has a bascule span with a clearance of 31 feet at the center. The bridgetender monitors VHF-FM channel 13 (156.65 MHZ).

(516) The large Bahia Mar yacht basin, consisting of two divided basins and an outer wharf, is on the east side of the Intracoastal Waterway about 0.4 mile southward of Las Olas Boulevard Bridge. Depths of 7 to 14 feet are alongside the face of the wharf, and decreasing depths from 11 to 5½ feet at the finger piers in the basins. The office of the yacht basin's dockmaster is in the administration building on the outer wharf. The dockmaster makes all berthing arrangements. Gasoline, diesel fuel, water, electricity, showers, ice, restaurant, motel, shopping center, and marine supplies are available. All kinds of supplies are available in the city.

(517) **New River,** the main navigation channel in this area, is entered through two connecting channels at **Mile 1065.0** and **Mile 1065.3.** In April 2002, the controlling depths were 8.0 feet in the north and south connecting channels, thence 6.3 feet (8.0 feet at midchannel) for about 0.5 mile above the junction of the connecting channels, thence in 1977, 7 feet to the William H. Marshall Memorial Bridge, about 1.7 miles above the waterway, thence in December 1976, 6 feet to the junction of South Fork, thence 6 feet in South Fork for 1.4 miles, thence 3½ feet in South Fork and South New River Canal to the junction with Dania Cut-Off Canal. At Tarpon Bend, 0.6 mile above the mouth, the channel is narrow and there are strong currents; also, heavy traffic can be expected here. In October 1981, a submerged piling was reported in South Fork in about 26°06'13"N., 80°09'35"W. In 1978, a submerged obstruction marked by a steel pipe was reported in South New River Canal in about 26°05.0'N., 80°11.1'W.

(518) Above the junction of New River with the Intracoastal Waterway, New River and South Fork are crossed by the following bridges with bascule spans and overhead cables: U.S. Route 1 passes through a tunnel under the river at Southeast Sixth Avenue; at 1.1 miles, Southeast Third Avenue highway bridge, clearance 16 feet; at 1.3 miles, South Andrews Avenue Bridge, clearance 21 feet; at 1.4 miles, Florida East Coast Railway bridge, clearance of 4 feet; an overhead power cable just above the railway bridge has a clearance of 80 feet; at 1.7 miles, the William H. Marshall Memorial Bridge with a clearance of 20 feet at the center; the overhead power cable just above this bridge has a clearance of 80 feet; on the South Fork, 0.8 mile above the mouth of the fork, Southwest 12th Street bridge has a clearance of 21 feet; at 2.7 miles, two parallel fixed highway bridges, clearance 55 feet; at 2.8 miles, Seaboard System Railroad (SCL) bridge, clearance 2 feet; the overhead power cable at the bridge has a clearance of 71 feet; at 3.8 miles, State Highway 84 bridge has a 40-foot bascule span with a clearance of 21 feet. The Southeast Third Avenue bridge, South Andrews Avenue bridge, William H. Marshall Memorial Bridge, and Davie Boulevard bridge are equipped with radiotelephones; the bridgetenders monitor VHF-FM channel 13. (See **117.1 through 117.59, 117.313, and 117.315**, chapter 2, for drawbridge regulations.) Overhead power cables close southward and 0.1 mile southward of the State Highway 84 bridge have a least clearance of 50 feet.

(519) In January 1985, twin fixed highway bridges with design clearances of 45 feet vertical and 40 feet horizontal were under construction close S of State Highway 84 bridge.

(520) The mean range of tide at the Andrews Avenue Bridge, New River, is 2.1 feet. The range increases towards the mouth of the river and is 2.4 feet at the Bahia Mar yacht basin, Fort Lauderdale. Strong currents may be encountered above the Southeast Sixth Avenue Tunnel; strangers going upriver are advised to obtain information from the City Dockmaster.

(521) **Speed** in New River is limited to no wake.

(522) Both banks of New River between U.S. Route 1 highway tunnel and Florida East Coast railroad bridge are owned by the city. Along the bulkheads, berths with water and electricity are provided for yachts. Arrangements for space are made with the city **dockmaster,** whose office is at 14 South New River Drive East. He has police powers over all the waterways within the city limits.

(523) **South New River Canal** joins the South Fork of New River with the Dania Cut-Off Canal. Overhead power cables across it have a minimum clearance of 60 feet.

(524) **Manatees.**–A regulated speed zone for the protection of manatees is in the vicinity of the powerplant at Fort Lauderdale

near the junction of South New River Canal and Dania Cut-Off Canal. (See Manatees, chapter 3.)

(525) A number of large storage yards are on New River about 2.5 miles above the city-owned berthing area. Several repair yards and storage basins are up the river. The largest shipyard has a marine elevator with a capacity of 300 tons, and a marine railway that can handle vessels up to 120 feet. Any hull or engine repairs can be made, and machine shops are available. Some yards have cranes of up to 50-ton capacity for rail-water or truck-water transfer.

(526) From New River, the Intracoastal Waterway continues southward through the **Stranahan River.** At **Mile 1065.9,** Fort Lauderdale Southeast 17th Street (State Route A1A) highway bridge has a bascule span with a clearance of 25 feet at the center. The bridgetender monitors VHF-FM channel 13. (See **117.1 through 117.59 and 117.261**, chapter 2, for drawbridge regulations.) In March 1999, a replacement bascule bridge was under construction with a design clearance of 55 feet. **Speed** in Stranahan River is limited to no wake.

(527) The entrance channel to the Lauderdale Yacht Club is on the west side of Stranahan River about 0.4 mile north of the Fort Lauderdale Southeast 17th Street bridge. The channel to the club from the Intracoastal Waterway is reported to be marked by a private lighted range and privately maintained piles. Depths of 7 feet are reported in the channel, and 5 feet alongside the pier and bulkhead. Water, electricity, and dockage are available for members.

(528) There are five marinas on the west side of Stranahan River. Two are close northward of the Southeast 17th Street highway bridge, and the other three are near the head of **Seminole River,** the first canal extending westward just north of the bridge. (See the small-craft facilities tabulation on chart 11467 for services and supplies available.) In April 1983, the reported controlling depth in Seminole River was 12 feet from the Intracoastal Waterway and 4 feet near the head.

(529) The **Mercedes River** extends eastward from the Intracoastal Waterway at **Mile 1065.7** to **Lake Sylvia.** A highway bridge crossing the river has a 26-foot fixed span with a clearance of 7 feet. In April 1983, the reported controlling depth in Mercedes River was 8 feet from the waterway to the bridge. A large marina on the south side of the entrance has gasoline, diesel fuel, water, ice, electricity, restrooms, showers, berthing, marine supplies, motel, restaurant, and provisions available. Depths alongside the piers and bulkheads are 15 to 4½ feet.

(530) A highway bridge over **Marietta River,** which extends southward from Mercedes River, has a 23-foot fixed span with a clearance of 8 feet. From just south of the bridge, **Marion River** extends eastward into **Mayan Lake** from Marietta River.

(531) **Port Everglades, Mile 1066.3,** and **Port Laudania** on Dania Cut-Off Canal are described in chapter 10.

(532) **Fort Lauderdale Coast Guard Station** is on the east side of the waterway at **Mile 1066.8.**

(533) **Whiskey Creek (Dania Sound)** (chart 11470), which is about 1.6 miles long, lies between the Intracoastal Waterway and the ocean. Highway and pedestrian bridges crossing the sound have least clearances of 20 feet horizontal and 10 feet vertical. Overhead power and telephone cables at the bridges at the north and south entrances have a minimum clearance of 30 feet.

(534) At **Mile 1067.5,** the waterway enters a land cut.

(535) **Manatees.**–Regulated speed zones for the protection of manatees are in Port Everglades west of the line between Light 11 and Light 12 and south along the Intracoastal Waterway through and including the discharge canal of the power plant at Port Everglades and the Dania Cut-off Canal.

(536) **Dania Cut-Off Canal** enters the waterway at **Mile 1068.8.** The canal was constructed by the county for drainage purposes, and during floodwater periods it may cut through to the ocean. In May 1983, the canal had a reported controlling depth of 9 feet to the first turn about 0.9 mile above the Intracoastal Waterway, thence 5½ feet to the powerplant at the intersection with South New River Canal, a distance of about 5 miles. An overhead power cable with a clearance of 130 feet crosses the canal about 0.6 mile westward of the intersection with the Intracoastal Waterway. Numerous commercial vessels use the first mile of the canal when calling at Port Laudania. These vessels are generally size and draft restricted to the center of the channel for their safe navigation. To prevent dangerous meeting situations, vessels over 50 feet in length or over 7 feet of draft should give Security calls on VHF-FM channels 13 and 16 prior to transiting the Dania Cut-off Canal. An unmarked rock awash extends about 45 feet into the channel on the south side of the canal about 0.8 mile above the entrance.

(537) Obstructions, marked by buoys, have been reported in the canal about 1 and 1.2 miles above the entrance.

(538) In July 1985, a sunken wreck was reported about 1.5 miles above the entrance in about 26°03'33"N., 80°08'28"W.

(539) A large marina, about 1 mile along the canal from the waterway, has berthage with electricity, gasoline, diesel fuel, ice, water, and marine supplies. An 80-ton lift is available for hull, engine, and electronic repairs.

(540) A yacht repair facility about 1.1 miles above the entrance has a 400-ton synchrolift, mobile lifts to 120 tons, and truck cranes to 20 tons. Machine, electrical, welding, paint, and carpentry shops are available for all types of repairs.

(541) A yacht basin is in the canal at **Dania,** 1.7 miles from the waterway. Berthage with electricity and a 15-ton lift are available. West of the yacht basin, bridges, overhead cables, pipelines, and other obstructions restrict the channel width to 28 feet and overhead clearance to 9½ feet.

(542) **Dania Beach** (State Route A1A) highway bridge, **Mile 1069.4,** has a bascule span with a clearance of 22 feet at the center. The highway bridge across the waterway at **Mile 1070.5** (locally known as Sheridan Street bridge) has a bascule span with a clearance of 22 feet at the center. The bridgetenders monitor VHF-FM channel 13. Just south of the bridge and on the east side of the waterway there are several places where some supplies may be obtained. Depths are 8 to 12 feet alongside the bulkhead.

(543) At the southeast corner of **North Lake, Mile 1072.1,** a yacht basin has berths with electricity, water, ice, and depths of 6 to 8 feet reported alongside in October 1998; there is a paved launching ramp.

(544) **Hollywood, Mile 1072.2,** is about 1 mile west of the waterway. On the ocean side east of the city is the Hollywood Beach Hotel, a very prominent structure. Gasoline can be obtained at a service station on the east side of the waterway. There are no repair facilities.

(545) **Hollywood Boulevard** (State Route 820) bridge, **Mile 1072.2,** has a bascule span with a clearance of 25 feet at the center. The bridgetender monitors VHF-FM channel 13. (See **117.1 through 117.59 and 117.261**, chapter 2, for drawbridge regulations.)

(546) At **Hallandale Boulevard, Mile 1074.0,** State Route 824 highway bridge has a bascule span with a clearance of 22 feet.

The bridgetender monitors VHF-FM channel 16 and works on channel 13. See **117.1 through 117.59 and 117.261**, chapter 2, for drawbridge regulations.) In March 1999, a replacement bridge was under construction with a design clearance of 24 feet.

(547) At **Mile 1076.3,** the N.E. 192nd Street fixed highway bridge has a clearance of 65 feet.

(548) At **Mile 1076.3,** the waterway enters shallow **Dumfoundling Bay.** A dredged channel, marked by private daybeacons and lights, leads west from the waterway at **Mile 1076.5** to an industrial area. In March 2001, the reported controlling depth was 5 feet. Care is required here as spoil banks are close aboard on both sides of the dredged channel through the bay. A sharp turn to the south is necessary to enter **Biscayne Creek** at **Mile 1077.3.**

(549) The Florida Department of Natural Resources has established a **slow-no wake speed zone** in Biscayne Creek from **Mile 1077.3** to **Mile 1078.5.**

(550) **Maule Lake,** on west side of the waterway at **Mile 1077.3,** is entered through a privately marked channel leading from the waterway at the southwest corner of Dumfoundling Bay. In April 1983, the reported controlling depth in the channel was 12 feet, and depths in the lake were 2½ to 17 feet over rocky bottom. At a marina on the west shore of the lake is berthage for 280 boats with depths from 18 to 8 feet alongside; controlling depth is 8 feet to the piers. All facilities are available, and there is a 30-ton mobile lift for complete marine repairs.

(551) In June 1988, a wreck was reported in Maule Lake in about 25°56'07"N., 80°08'45"W. The wreck is marked by a lighted buoy.

(552) At **Mile 1078.0,** State Route 826 highway bridge (locally known as Sunny Isles bridge) crossing the waterway, has a bascule span with a clearance of 30 feet. (See **117.1 through 117.59 and 117.261,** chapter 2, for drawbridge regulations.) The overhead power cable 55 yards north of the bridge has a clearance of 71 feet.

(553) On the east bank of the waterway, at **Mile 1078.0** and just south of the highway bridge, a marina has berths, gasoline, diesel fuel, water, ice, electricity, and marine supplies. There is a 30-ton marine lift that can handle boats for hull, engine, and electronic repairs. In April 1983, the reported controlling depth was 21 feet from the waterway to the marina, and there were depths of 7 to 8 feet alongside.

(554) **Oleta River** leads westward from Biscayne Creek, at **Mile 1078.0,** and continues on into Maule Lake. The reported controlling depths, in April 1983, were 4 feet from the Intracoastal Waterway to the highway bridge 1.5 miles above the entrance, thence 2½ feet into Maule Lake. Another fixed bridge crosses the river about 0.3 mile above the entrance.

(555) The Intracoastal Waterway enters the northern end of **Biscayne Bay** at **Mile 1078.5.** The bay is a shallow body of water extending about 33 miles southward, and is unexcelled as a yachting and small-boating area. The upper part of the bay is very shallow, about 2 miles wide, and is separated from the Straits of Florida by a narrow peninsula, Virginia Key, and by Key Biscayne. The remainder of the bay south of Miami has an average width of about 7 miles, general depths of 9 to 10 feet with several places having depths of 13 to 15 feet, and is separated from Hawk Channel by a number of keys and coral banks through which there are several narrow and shallow channels. In the lower part of Biscayne Bay and in the bays and sounds southward, the water is so clear on calm days that the bottom can be seen at considerable depths. On windy days, the water becomes milky and opaque.

(556) At **Mile 1079.5,** an unmarked channel leads southward to Bakers Haulover Inlet. In May-June 1983, the controlling depth in the channel was 6½ feet at midchannel to the highway bridge crossing the inlet. A large municipal marina for the use of yachtsmen and party fishermen is on the east side of the channel just south of the waterway. The marina may also be approached through an unmarked channel that leads east from the waterway at **Mile 1079.8.** In May-June 1983, the controlling depth was 8 feet in the channel and in the basin, and thence in April 1983, 7 feet reported at the finger piers. Gasoline, diesel fuel, water, ice, and electricity are available. There is berthage for 58 boats; a charge is made for docking. A launching ramp is also available.

(557) The Florida Department of Natural Resources has established a **slow-no wake speed zone** where the unmarked channels converge just north of Bakers Haulover Inlet from **Mile 1079.5** to **Mile 1079.8.**

(558) **Bakers Haulover Inlet** is described in chapter 10.

(559) **Bal Harbour,** a private development, is immediately southward of Bakers Haulover Inlet. Several large hotels are conspicuous landmarks.

(560) At **Mile 1080.4,** an unmarked channel leads south-southeasterly to Bal Harbour yacht basin that has a depth of 14 feet. The channel had a reported controlling depth of 7 feet in April 1983. The yacht basin is for members only, but other craft may take refuge here during bad storms.

(561) **Indian Creek** extends southward about 6 miles along the eastern part of Biscayne Bay from Bal Harbour to Collins Canal in Miami Beach. In 1963, the controlling depth was 5 feet in Indian Creek. A highway bridge and a pipeline bridge across the creek from Bal Harbour to **Bay Harbor Islands** each have a 43-foot fixed span with a clearance of 12 feet. An overhead power cable on the north side of the bridge has a clearance of 51 feet. About 0.5 mile southward, the bridge at **Surfside** has a 40-foot fixed span with a clearance of 12 feet. The bridge between **Atlantic Heights** and **Normandy Isle** has a 29-foot fixed span with a clearance of 5 feet.

(562) On the east side of **Allison Island,** Indian Creek is crossed by West 63rd Street bridge with a bascule span having a clearance of 11 feet. (See **117.1 through 117.49** , chapter 2, for drawbridge regulations.) A highway bridge over the channel west of the island has a 23-foot fixed span with a clearance of 6 feet. Southward of Allison Island, fixed bridges crossing Indian Creek limit the channel to a minimum width of 41 feet and a clearance of 12 feet.

(563) From the southern end of Indian Creek, **Collins Canal** leads southwesterly along the southeast side of the prolongation of **Venetian Causeway.** In April 1983, the reported controlling depth was 3 feet in the canal. Fixed bridges crossing the canal limit the channel width to 23 feet and the clearance to 5 feet.

(564) At **Mile 1080.9,** a channel on the west side of the Intracoastal Waterway leads northwestward to the west shore, follows the shore in a northerly direction to **New Arch Creek,** and follows the creek about 0.8 mile westward to two marinas where berths with electricity, gasoline, diesel fuel, water, ice, and marine supplies are available. A 30-ton mobile hoist is also available; hull, engine, and electronic repairs can be made. The channel is marked by daybeacons.

(565) At **Mile 1081.4, Broad Causeway** (NE 123rd Street) highway bridge crossing the Intracoastal Waterway has a bascule

span with a clearance of 16 feet at the center. (See **117.1 through 117.59 and 117.261**, chapter 2, for drawbridge regulations.) The bridgetender monitors VHF-FM channels 13 and 16. The Florida Department of Natural Resources has established a **slow-no wake speed zone i**n the Intracoastal Waterway extending 100 yards on both sides of the Broad Causeway highway bridge. Immediately south of the causeway, a privately marked channel leads to a marina on the west side of the bay.

(566) **Miami Beach Channel,** about 0.5 mile south of Broad Causeway, is a natural channel that leads southeastward to **Biscayne Point,** thence along the west and south sides of **Normandy Isle,** thence along the east shore of the bay southward to Venetian Causeway and Collins Canal in **Miami Beach,** and thence along the west side of Miami Beach southward of MacArthur Causeway and **Meloy Channel**. In April 1983, the reported controlling depths were 7 feet from the waterway southward to the Julia Tuttle Causeway, except for shoaling to 3 feet about 0.4 mile above the causeway at Daybeacon 22, thence 9 feet to Meloy Channel.

(567) Four bridges cross the channel. At Normandy Isle the easterly bascule span of the 79th Street Causeway has a clearance of 25 feet at the center. The large marina on **Treasure Island** at the west end of bridge has berths with electricity, water and ice. In October 1998, depths of 9 feet were reported alongside. The easterly fixed span of the 36th Street Causeway has a clearance of 35 feet; Venetian Causeway bascule span between Rivo Alto Island, the most easterly of the Venetian group, and Belle Isle has a clearance of 9 feet. The fixed bridge near the east end of MacArthur Causeway has a clearance of 35 feet. (See **117.1 through 117.59 and 117.269**, chapter 2, for drawbridge regulations.)

(568) A marina on Miami Beach Channel, just north of the MacArthur Causeway Bridge, has berthage with electricity, gasoline, diesel fuel, water, ice, some marine supplies; hull, engine, and electronic repairs can be made. On the south side of the bridge on Meloy Channel, is a charter-boat facility and a marina with similar services. Meloy Channel is described in chapter 10.

(569) At **Mile 1083.8,** a dredged channel leads southeastward from the Intracoastal Waterway to a private yacht basin in **Harbor Island** just north of the 79th Street Causeway. In April 1983, the reported controlling depth was 5 feet. The channel is marked by private piles.

(570) **Seventy-Ninth Street Causeway, Mile 1084.6,** has a bascule span over the waterway that has a clearance of 25 feet at the center. The Florida Department of Natural Resources has established a **slow-no wake speed zone** in the Intracoastal Waterway extending 100 yards on both sides of the 79th Street Causeway Bridge.

(571) **Little River** flows into the west side of Biscayne Bay at **Mile 1084.9.** Yachts tie up along the banks of the river. In 1975, the controlling depth was 6 feet to the highway bridge about 0.6 mile above the mouth. The bridge (U.S. Route 1) has a 34-foot fixed span with a clearance of 8 feet. Boats that can clear this bridge can continue upstream to the dam at the Florida East Coast Railway bridge, which is the head of navigation. The controlling depth was 3 feet, in 1963, from the highway bridge to the dam.

(572) A boatyard is on the north shore of Little River, about 0.6 mile above the mouth. The yard has a 20-ton marine lift, and a marine railway that can handle craft up to 50 feet. Gasoline, water, ice, electricity, and marine supplies are available. There is berthage for about 15 boats with 7 to 10 feet reported alongside in April 1983. There is a machine shop on the premises; hull and engine repairs can be made.

(573) **Julia Tuttle (Thirty-Sixth Street) Causeway, Mile 1087.1,** has a fixed span over the waterway with a clearance of 56 feet, which is the least overhead clearance of the fixed bridges over the main route of the Intracoastal Waterway between Norfolk and Miami.

(574) At **Mile 1088.5, Sunset Harbor Channel** leads eastward through Biscayne Bay and connects with Miami Beach Channel on the east side of the bay just northward of Belle Isle. The channel is marked by private lights and daybeacons and in December 1991, the controlling depth was 6 feet except for lesser depths to 3 feet in the vicinity of Miami Beach Channel Daybeacon 30.

(575) **Venetian Causeway, Mile 1088.6,** has a bascule span over the waterway with a clearance of 12 feet at the center. (See **117.1 through 117.59 and 117.261**, chapter 2, for drawbridge regulations.)

(576) The Florida Department of Natural Resources has established a **slow-no wake speed zone** from 100 yards north of the Venetian Causeway bascule bridge at **Mile 1088.5** to the southern tip of Claughton Island, **Mile 1090.5.**

(577) At **Mile 1089.4,** the waterway is crossed by a fixed highway bridge with a clearance of 65 feet. The bridge connects with **Port of Miami (Dodge Island).** The trestle of the old bascule bridge remains but is reportedly maintained in the open position.

(578) **Miami, Miami Beach,** and **Miami Harbor, Mile 1089.1** are described in chapter 10.

(579) At **Mile 1089.8, Fishermans Channel,** a private channel maintained by the City of Miami, leads northeastward from the waterway to a turning basin off the southwest corner of Dodge Island, thence eastward to the turning basin at Fisher Island. The channel that connects the waterway to the turning basin off Dodge Island has natural depths to 8 feet, thence in 1988-1989, the controlling depth was about 19 feet to the turning basin at Fisher Island, with lesser depths along the shores of Dodge and Lummus Islands. The channel is well marked. About 1.1 miles westward of Fisher Island, a natural channel leads southward from Fishermans Channel to Rickenbacker Causeway. The channel is little used and is unmarked. In April 1983, it was reported to have a depth of 6 feet.

(580) At **Mile 1090.5,** a dredged channel leads north-northwest from the waterway, west of **Claughton Island,** to the mouth of the Miami River. This channel is the approach to Miami River from the south. In 1967, the centerline controlling depth was 8 feet. A highway bridge with a 49-foot fixed span and a clearance of 8 feet crosses the channel from the mainland to Claughton Island.

(581) From Miami the Intracoastal Waterway continues southward along the waterfront, thence through Miami South Channel to **Rickenbacker Causeway** at **Mile 1091.6**. The causeway has a fixed span over the waterway with a clearance of 76 feet. The approach spans of the old bascule bridge have been converted to fishing piers.

(582) The Florida Department of Natural Resources has established a **slow-no wake speed zone** in the Intracoastal Waterway extending 100 yards on both sides of the Rickenbacker Causeway.

(583) The photograph of the causeway shown on the accompanying page is compliments of Dillon-Reynolds Aerial Photography, Inc.

(584) Northeastward of the Bay Bridge of Rickenbacker Causeway on the west side of Virginia Key is the Commodore Ralph

Munroe Marine Stadium, a marine race course, which had a reported depth of 6 feet. The grandstand on the south side and the Seaquarium southeastward of it are prominent.

(585) Two marinas and a boatyard are in a cove at the east end of the causeway. Berths with electricity, gasoline, diesel fuel, ice, supplies, a 2½-ton hoist, hull and engine repairs, and sewage pumpout are available.

(586) About 2 miles south of Rickenbacker Causeway, **Crandon Park Marina Channel,** privately marked by lights, buoys, and daybeacons, leads northeasterly in **Bear Cut** to the Dade County Yacht Basin in the bight of Northwest Point, Key Biscayne. The reported controlling depth from Bear Cut to the basin was 10 feet in 1983; thence in 1999, 8 feet was reported in the basin. In 1984, shoaling to 4 feet was reported between Daybeacons 7 and 8. The basin is used by party fishing boats. Gasoline, diesel fuel, water, ice, electricity, restaurant, and limited berthage is available for transients. A 10-ton marine lift and a launching ramp are here. The highway bridge over Bear Cut has a 48-foot fixed span with a vertical clearance of 16 feet. A daybeacon marks the eastern approach to Bear Cut outside the keys.

(587) About 2.3 miles southward of Rickenbacker Causeway are two channels leading westward to the facilities at **Dinner Key** in **Coconut Grove.** Both channels are marked. The northerly channel had a reported controlling depth of 4½ feet in April 1983. In May 1979, a visible wreck was reported about 0.2 mile northwestward of Daybeacon 5, in about 25°43'42"N., 80°13'49"W.

(588) The Coral Reef Yacht Club is reached through the northern channel. Marine supplies are available, and there is a launching ramp.

(589) **Dinner Key Channel,** the southerly channel, leads to the large **Dinner Key Yacht Basin.** The channel is marked by lights and daybeacons. In 1998, the reported controlling depth was 7 feet in the channel and 8 feet in the basin. The yacht basin is maintained by the city of Miami and has five piers with water and electrical connections; a charge is made for berthage assigned by the dockmaster. There is berthage for 370 boats with depths of 5 to 8 feet alongside. A launching ramp is available.

(590) Several privately owned marinas and boatyards are northward and southward of the city yacht basin. Gasoline, diesel fuel, water, ice, and marine supplies can be obtained. Fixed lifts to 30 tons are available at the boatyards; complete engine, hull, and electronic repairs can be made.

(591) **Four-Way Channel** is 3 miles south of Rickenbacker Causeway and leads westward to some private piers and a mooring area; the controlling depth in the channel was reported to be 5 feet on centerline in 1999. A privately maintained unlighted **296°** range and daybeacons mark the entrance channel.

(592) **Entrada Channel,** about 0.5 mile southward of Four-Way Channel, is marked by private daybeacons. In 1999, the reported controlling depth was 3½ feet.

(593) **Coral Gables Waterway** is 4.2 miles south of Rickenbacker Causeway. It is a dredged channel through coral, and extends westward about 2 miles inland to U.S. Route 1 highway bridge. The canal, used for drainage purposes, has no docks along the banks; craft tie up to the banks. The reported controlling depth was 5 feet in 1999. The entrance is marked by a light and daybeacons. In November 1979, shoaling to an unknown extent was reported between Daybeacons 5 and 7.

(594) **Coral Gables** is a picturesque resort that joins Miami on the southwest. The tower of a hotel is a conspicuous landmark that shows over the lower part of Biscayne Bay.

(595) At **Matheson Hammock Beach, Mile 1097.5,** on the west side of Biscayne Bay, there is a marina which has berths with depths of 4 to 7 feet alongside the piers. There is a launching ramp, and gasoline, diesel fuel, water, ice, and electricity are available. The two entrance channels are marked by private daybeacons, and the south channel is marked by a **347°** lighted range and a light. In March 1999, 4 feet was reported in the north channel; and in December 1998, 6½ feet was reported in the south channel. The remains of a daybeacon structure at the entrance to the south channel in about 25°30'25"N., 80°15'28"W., are reported to be a hazard to navigation; caution is advised.

(596) **Charts 11465, 11451.–Snapper Creek Canal,** about 1.3 miles south of Matheson Hammock, is a drainage canal navigable to a salinity structure about 1.3 miles above the entrance. A yacht basin with services is just upstream of the highway bridge 1 mile above the entrance. The fixed bridge has a 20-foot span with a clearance of 11 feet. The entrance to the canal is marked by private daybeacons and in March 1999, had a reported controlling depth of 5 feet.

(597) At **Kings Bay, Mile 1102.2,** on the west side of Biscayne Bay 9 miles southward of Rickenbacker Causeway, there is a yacht and country club. There is berthage for 150 boats with depths of 7 to 10 feet alongside the piers. Gasoline, diesel fuel, water, ice, electricity, and restaurant are available and there is a launching ramp. A 6-ton hoist can handle craft for engine and electronic repairs. **Cutler Channel,** leading to the yacht basin and a powerplant, is marked by private aids. In March 1999, there was a reported channel depth of 6 feet.

(598) The Intracoastal Waterway crosses **Featherbed Bank** at **Mile 1107.6** and is marked by daybeacons and lights. Another channel through Featherbed Bank about 2.5 miles eastward of the waterway is marked by a light and daybeacons. In April 1983, the reported controlling depth was 8 feet. Care must be taken to stay in the center of the channel; the appearance of the water is the best guide, as the shoals on each side are usually visible. The daybeacon northeastward of Featherbed Bank is not easily seen at a distance. Good landmarks are the tower resembling a lighthouse on **Boca Chita Key northward of Sands Key** and the 415-foot stacks of the powerplant at Turkey Point (25°26.1'N., 80°19.8'W.).

(599) **Charts 11465, 11463, 11451.–Biscayne National Park,** a protected area, is between **Mile 1097.0** and **Mile 1119.2.** The National Park Service has established an anchorage area off the northern end of **Elliott Key,** opposite **Mile 1110.0.** The anchorage is marked by buoys. A park ranger is stationed at **Elliott Key Harbor** opposite **Mile 1112.4.** Berths and camp sites are available. No services are available.

(600) From **Mile 1109** to **Mile 1113.2** the Intracoastal Waterway passes through an Air Force training area. Mariners are urged to exercise caution because training drills utilizing helicopters, parachutes, small one-man liferafts, and support craft are conducted daily in the area.

(601) **Charts 11463, 11451.**–The **Homestead Bay Front Park Marina** at the entrance to **North Canal,** 5 miles west of **Mile 1111.5,** is entered just south of **Convoy Point.** The entrance is marked by lights and daybeacons. In July 1985, the entrance channel had a reported controlling depth of 4 feet; in 1983, depths of 4 feet were available alongside the piers. Slips are available for

berthing 70 boats up to 40 feet; there is a launching ramp and a 3-ton hoist for craft to 25 feet. Gasoline, water, ice, and electricity are available at the basin.

(602) A barge channel on the west side of Biscayne Bay, with a reported centerline controlling depth of 7½ feet in April 1983, leads from water of the same depth in the bay for a distance of about 3.1 miles to a powerplant on **Turkey Point, Mile 1113.7.** The channel is marked by a light and buoys. Two 415-foot stacks at the powerplant are prominent.

(603) **Caesar Creek,** 1.2 miles southeast of **Mile 1115.0,** between **Elliott Key and Old Rhodes Key,** connects Biscayne Bay with Hawk Channel. The reported controlling depth was 8 feet in April 1983, except for shoaling to 2 feet at the bayside entrance. The entrance from Hawk Channel is marked by a light, and private daybeacons mark the channel through the creek.

(604) The Intracoastal Waterway leaves Biscayne Bay via a straight dredged cut through **Cutter Bank** at **Mile 1117.3** and enters **Card Sound.** The sound is a body of water about 5 miles long and 2.7 miles wide with depths of 7 to 12 feet in the center.

(605) **Angelfish Creek,** 1.5 miles southeast of **Mile 1120.0** between **Palo Alto Key** on the north and **Key Largo** and **Angelfish Key** on the south, connects Card Sound with Hawk Channel. The controlling depth, in April 1983, was reported to be 5 feet. The channel is marked by lights and daybeacons.

(606) Good anchorage in depths of 9 feet is available in Card Sound on the south side of **Pumpkin Key,** 1.5 miles southeast of **Mile 1121.8.**

(607) In September 1977, numerous piles were reported to extend southeast from Pumpkin Key to Snapper Point on the west side of Key Largo. Caution is advised when navigating in this area.

(608) Gasoline, diesel fuel, lubricating oil, water, ice, and electricity are available at the Key Largo Anglers Club, 1.8 miles southeast of **Mile 1122.4.** A lift is available for hauling out boats up to 35 feet. A prominent microwave tower is a good landmark on the westerly side of the Card Sound and Little Card Sound area. Another microwave tower, just west of Ocean Reef Harbor on Key Largo, is also prominent.

(609) From Card Sound the waterway follows **Card Point Cut,** a dredged cut across **Card Bank, Mile 1124.4,** the shoal that separates Card Sound from **Little Card Sound.** Little Card Sound has depths of 6 to 9 feet in the center.

(610) The waterway enters a dredged channel through the shoal that separates Little Card Sound and **Barnes Sound** opposite **Barnes Point, Mile 1126.8.** A fixed highway bridge with design clearance of 65 feet crosses the waterway at Barnes Point. An overhead power cable northward of the bridge has a clearance of 88 feet. Barnes Sound is about 6 miles long and 3 miles wide, with depths of 7 to 10 feet in the center.

(611) Near the south end of Barnes Sound the waterway enters **Jewfish Creek, Mile 1132.8.** The highway bridge crossing the creek at **Cross Key, Mile 1134.1,** has a bascule span with a clearance of 11 feet at the center. (See **117.1 through 117.59 and 117.261**, chapter, for drawbridge regulations.) The bridgetender monitors VHF-FM channel 13 on weekends and holidays. In October 2000, two parallel high-level replacement fixed highway bridges were under construction with a design clearance of 65 feet. Overhead power cables just southwest of the bridge have a minimum clearance of 85 feet. On the southwest side of the bridge are three marinas with more than 70 berths. Electricity, gasoline, diesel fuel, water, ice, launching ramp, and a 1-ton lift is available; hull repairs can be made.

(612) The waterway continues southward into **Blackwater Sound,** a body of water about 3 miles square that has depths of 7 to 8 feet in the center. A cut leads from Blackwater Sound into the southern part of **Lake Surprise** in the northeast end of the sound. In April 1983, the reported controlling depth in the dredged cut was 4 feet. A boatyard is on a canal that extends eastward from the lake 0.4 mile east of the cut. An 11-ton mobile lift is available for hull, engine, and electronic repairs. In April 1983, it was reported that Lake Surprise was an excellent harbor of refuge, used frequently as an overnight anchorage by small craft. A marina at the southeast end of Blackwater Sound has gasoline, diesel fuel, water, ice, marine supplies, and storage facilities. A mobile lift can handle craft to 26 feet for hull, engine, and electronic repairs.

(613) The waterway follows **Dusenbury Creek** from Blackwater Sound to **Tarpon Basin.**

(614) **Charts 11463, 11451.**–The waterway follows an east-to-west course across Tarpon Basin and on the west side exits through **Grouper Creek** into **Buttonwood Sound;** in the eastern end of the creek, the deepest water is close to the south bank. Tarpon Basin is reported to offer good shelter from winds from any direction, but the holding ground is poor with thick grass over the bottom.

(615) From Buttonwood Sound, which has a depth of 5 to 7 feet, the Intracoastal Waterway follows **Baker Cut, Mile 1143.0,** into **Florida Bay.** The route across the bay crosses many bars and is well marked by lights and daybeacons.

(616) A protected area of the **Everglades National Park** is in the northern part of Florida Bay. Landing on the beaches or keys of this area without the authorization of the Superintendent of the Everglades National Park is prohibited, except on those beaches or keys marked by a sign denoting the area as being open.

(617) **Community Harbor,** a bight on the southerly end of Key Largo and 1 mile southwest of **Mile 1150.0,** is the bayside waterfront of **Tavernier.** The entrance is marked by daybeacons and stakes. In April 1983, the controlling depth to the wharf was reported to be 3 feet. A marina at the southern end of the harbor has berths with electricity, gasoline, diesel fuel, water, ice, and marine supplies. A 16-ton mobile hoist is available for hauling out vessels for hull, engine, and electronic repairs.

(618) **Tavernier Creek,** just westward of Tarvernier, in April 1983, had a reported controlling depth of 4 feet to Hawk Channel and is frequently used by local fishing craft. The south entrance to the creek is marked by a light and daybeacons, and the north entrance is marked by daybeacons. In September 1986, a submerged obstruction was reported 0.25 mile northeast of the light in about 24°59'24"N., 80°31'06"W. A fixed highway bridge near the southern end of the creek has a clearance of 15 feet. In January 1982, it was reported that strong currents may be experienced in the vicinity of the bridge, particularly during spring tides. In February 1991, a fixed highway bridge with a design clearance of 15 feet was under construction immediately north of the existing bridge. Gasoline, diesel fuel, water, ice, and some marine supplies are available at the small-craft facilities near the bridge.

(619) **Cross Bank, Mile 1152.5,** is crossed by **Cowpens Cut,** a straight dredged channel marked by lights and daybeacons.

(620) At **Mile 1155.0,** in **Cowpens Anchorage,** there are marinas where berths with electricity, gasoline, diesel fuel, water, ice, and some marine supplies are available. A lift that can handle

craft to 25 feet is available for hull, engine, and electronic repairs. The reported controlling depth to the anchorage was 6 feet in April 1983.

(621) **Snake Creek,** 1.3 miles south of **Mile 1156.0** between **Plantation Key** and Windley Key, is used by local fishing boats as a passage between the bay and the ocean. In January 1984, the reported controlling depth through the creek was 4 feet. The entrance to the creek from the ocean side is marked by daybeacons and a light. The highway bridge across the creek has a bascule span with a clearance of 27 feet. (See **117.1 through 117.59 and 117.331**, chapter 2, for drawbridge regulations.) On the north side of the bridge there is a small marina and a fishing camp. Gasoline, engine repairs, water, ice, some marine supplies, and a launching ramp are available. Currents are strong through the creek, and especially at the bridge. Gasoline, water, and ice are available at the wharf at the ocean entrance on Windley Key.

(622) **Islamorada Coast Guard Station** is on the east side of Snake Creek at 24°57.2'N., 80°35.2'W.

(623) **Windley Harbor,** 1.7 miles south of **Mile 1157.2,** is a good but seldom used refuge that is well protected from all directions. **Whale Harbor Channel,** west of **Wilson Key,** is marked by a light and daybeacons. In April 1983, the channel had a reported controlling depth of 5 feet. Two fixed bridges over the channel, one highway and one pedestrian, have a least clearance of 33 feet horizontal and 12 feet vertical. Berths with electricity, gasoline, diesel fuel, water, ice, and marine supplies are available at Windley Harbor.

(624) **Upper Matecumbe Key** is 2 miles southeast of **Mile 1160.0. Islamorada** is on the key. The **Florida Key Memorial** is in about the middle of the key.

(625) Three marinas are about in the center of the key on the northwest side. (See the small-craft facilities tabulation on chart 11451 for services and supplies available.)

(626) At **Mile 1160.7,** the waterway passes through **Steamboat Channel,** a dredged cut through **Shell Key Bank.** The channel in the cut is marked by lights and daybeacons.

(627) **Charts 11449, 11451.–Shell Key Channel** and **Race Channel,** just to the northwestward of Upper Matecumbe Key, are used by small sport-fishing craft. These channels join to form **Teatable Key Channel** connecting the Intracoastal Waterway and Hawk Channel. Teatable Key Channel is crossed by two fixed bridges, one highway and one pedestrian, and an adjacent overhead pipeline with least clearances of 33 feet horizontal and 10 feet vertical. In April 1983, the reported controlling depth was 8 feet from Hawk Channel to Florida Bay through Teatable Key Channel and Race Channel.

(628) There are marinas and repair facilities at the southwest end of Upper Matecumbe Key. (See the small-craft facilities tabulation on chart 11451 for services and supplies available.)

(629) **Indian Key Channel,** 1.7 miles south of **Mile 1162.3,** one of the routes connecting Florida Bay and Hawk Channel, is described in chapter 11.

(630) **Lignumvitae Channel,** 1.6 miles south of **Mile 1163.3** and west of Lignumvitae Key, forms a passage from the Intracoastal Waterway to Hawk Channel. Two fixed bridges that cross the channel, one highway and one pedestrian, have least clearances of 32 feet horizontal and 10 feet vertical. Pilings that support overhead power cables close north of the bridges somewhat restrict the channel; local knowledge is advised. Berths with electricity, gasoline, diesel fuel, water, ice, and a launching ramp are available at a marina at the northeast end of **Lower Matecumbe Key.**

(631) Overhead power cables at the fixed bridges along the highway viaduct between Upper Matecumbe Key and Grassy Key have a minimum clearance of 26 feet, but are submerged at the drawbridges.

(632) **Peterson Key Bank, Mile 1165.0, is crossed by Bowlegs Cut.** After passing through the cut, traffic may continue southwestward through Channel Five to Hawk Channel. In 1975, the controlling depth was reported to be 7 feet.

(633) **Matecumbe Harbor,** is at the southwest end of **Lower Matecumbe Key**, 1 mile southeast of **Mile 1168.8** via Channel Five. The entrance is marked by a light, and the remainder of the channel is privately marked. In April 1983, the controlling depth was reported to be 5 feet in the entrance, with deeper water inside. Gasoline, diesel fuel, water, ice, electricity, and marine supplies are available at a marina in the southern part of the harbor. A mobile lift can handle craft to 24 feet for hull, engine, and electronic repairs.

(634) **Channel Two,** just west of Matecumbe Harbor, connects Florida Bay and Hawk Channel. In 1975, the reported controlling depth in the channel was 8 feet. The channel is crossed by two fixed bridges, one highway and one pedestrian, with a least clearance of 35 feet horizontal and 11 feet vertical. In April 1983, submerged pilings were reported to exist in Channel Two; caution is advised. A daybeacon marks a submerged piling in midchannel south of the bridges.

(635) **Channel Five, Mile 1170.6,** one of the main routes by which boats can reach Hawk Channel, is described in chapter 11.

(636) At **Mile 1170.6,** there is a marina on **Fiesta Key** where gasoline, water, ice, restaurant, motel, electricity, and some marine supplies are available. The reported controlling depth in the channel leading to the marina was 3 feet in April 1983, with 4 to 5 feet alongside the pier.

(637) At **Mile 1171.6,** there is a marina on Long Keywhere gasoline, water, ice, electricity, restaurant, motel, launching ramp, and marine supplies are available. Berthage is limited. The reported controlling depth in the channel leading to the marina and alongside the pier was 3 feet in April 1983.

(638) At the west end of **Long Key,** 2.2 miles south of **Mile 1174.2,** berthage with electricity, gasoline, water, ice, a boat launching ramp, and limited marine supplies are available at a marina. **Conch Keys,** 2.4 miles west of the west end of Long Key, are marked by a water tank. The channel to the wharf on the north side of the east key is privately marked. In April 1983, the channel had a reported controlling depth of 3 feet, with 2 feet alongside the wharf. Gasoline, water, and other services are available.

(639) At **Mile 1178.7,** the waterway goes through **Channel Key Banks** at **Channel Key Pass**, which is marked by a light and daybeacons.

(640) **Grassy Key** is at **Mile 1181.6.**

(641) **Marathon,** on **Vaca Key** 1.5 miles south of **Mile 1192.0,** is the second largest town on the Florida Keys. There are several small-craft facilities on the north side of Vaca Key at Marathon. (See the small-craft facilities tabulation on chart 11451 for services and supplies available.)

(642) Additional facilities on the south side of Vaca Key at Marathon, and in Boot Key Harbor are described in chapter 11.

(643) A group of four radio towers on the southwest end of Boot Key south of Marathon and three radio towers about 1.1 miles to

the east-northeastward of the first group are prominent. An aerolight is at Marathon Airstrip at the east end of Vaca Key.

(644) **Marathon Coast Guard Station** is on the bay side at Marathon.

(645) **Knight Key Channel,** just west of Marathon, had a reported controlling depth of 8 feet in 1975. The fixed highway and pedestrian bridges crossing the channel have a least clearance of 19 feet.

(646) **Bethel Bank, Mile 1193.4,** is a junction point in the Intracoastal Waterway. Vessels may follow the southern route via Moser Channel or Bahia Honda Channel and Hawk Channel to Key West, or the northern alternate route via Big Spanish Channel and the Gulf of Mexico. The southern route is about 14 miles shorter to Key West.

(647) **Pigeon Key,** on the east side of Moser Channel, is marked by white buildings. The viaduct passes high overhead at the key.

(648) **Moser Channel, Mile 1196.9,** and **Bahia Honda Channel (Bahia Honda),** 7 miles to the westward, connect Florida Bay and Hawk Channel. These channels are described in chapter 11.

(649) **Chart 11445.**–The Intracoastal Waterway routes through Moser Channel and Bahia Honda Channel rejoin at **Mile 1207.8,** about 2.1 miles south of the bridge over Bahia Honda Channel, and then the route follows the aids in Hawk Channel to Key West. Hawk Channel is described in chapter 11.

(650) **Newfound Harbor Keys Anchorage, Newfound Harbor Channel, Niles Channel, Cudjoe Bay,** and **Bow Channel** are discussed in chapter 11.

(651) **Chart 11445.**–From Hawk Channel, the Intracoastal Waterway joins the Main Ship Channel at **Mile 1241.9** about 0.5 mile southward of Key West, and then follows the main channel to **Key West, Mile 1243.8.** The supply and repair facilities at Key West are described in chapter 11.

(652) **Saddlebunch Harbor, Boca Chica Channel,** and **Safe Harbor Channel** are discussed in chapter 11.

(653) **Charts 11448, 11442.–Big Spanish Channel to Key West, north of Florida Keys.**–The northern alternate route of the Intracoastal Waterway leads northwestward from Bahia Honda through **Big Spanish Channel** to Harbor Key Bank, thence along the north side of the Florida Keys to Northwest Channel, thence to Key West. In April 1983, it was reported that the controlling depth for this route was 2 feet. Numerous submerged pilings are also in this channel. Local knowledge is advised.

(654) At **Mile 1214.2A,** the waterway passes through a crooked channel marked by daybeacons southwest of **Big Spanish Key.** Caution should be exercised in this shoal area. Northward of the key the color of the water is a good indication of the channel location.

(655) At **Harbor Key Bank Light 45, Mile 1218.3A,** the waterway enters the Gulf of Mexico, turns westward and follows a course of **246°** for about 28 miles to the lighted bell buoy at the entrance to **Northwest Channel, Mile 1251.1A.** A course closer to the Florida Keys should not be attempted because the landmarks are difficult to identify and the bottom inside the 18-foot contour rises abruptly.

(656) Use charts **11442** and **11441** westward of Johnston Key to Northwest Channel, thence to **Key West, Mile 1260.3A.** Northwest Channel and Key West are described in chapter 11.

(657) The recommended routes to Key West are via Hawk Channel or through Big Spanish Channel; these routes have been described earlier.